Panel II: Public Versus Private Environmental Regulation

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As Alfred North Whitehead once said, the process is itself the actuality. That, I think, is what we will end up discussing today. I find myself in surprisingly close agreement with Richard Lazarus. Let me tell you why, by discussing what is probably the largest environmental regulatory program in history.

When it suits its purpose, Congress has embraced both the private and the public models of environmentalism. It has wrapped each model in a large number of words. And poured the results into a single statute called Superfund.¹

Superfund, as I shall discuss in my brief remarks today, embraces both approaches—and fails both times. If one is to judge from the Superfund experience, one must agree with Mr. Lazarus that process is secondary—it does not solve the central problems. We must first develop consensus—a lucid articulation of the objectives we are pursuing. And for developing a public consensus, there is no real choice but to use “public” instruments. One cannot simply leave the whole job to the private law of tort and contract, at least not to tort and contract as enforced in our courts today.

The official title of Superfund is the “Comprehensive Environmental Response, Compensation, and Liability Act.”² There is not much “compensation” in the Act, except to lawyers and administrators. But there is, on the one hand, a “Response” Superfund—the largely public program. And there is also a “Liability” Superfund, which aims to reprivatize the costs of hazardous wastes through tort law.

Superfund is the most expensive environmental program in history. Just how expensive it is nobody knows. Since 1980, Congress has levied some $15.2 billion of Superfund taxes, principally by way of a levy on feedstock chemicals and petroleum, and a broad corporate

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² Id.
environmental income tax.³ This is the Response Superfund. EPA may spend up to $2 million of this money per site to protect against imminent danger to health, or for nonemergency remediation.⁴ By the end of 1992, EPA had spent $7.3 billion in this manner;⁵ spending continues at a rate of about $1.6 billion per year.⁶ This is the "public" budget that in principle empowers EPA just to go out and take care of emergency cleanups. But very little has been achieved with all that money.

EPA is also empowered to sue private parties—either after EPA has spent cleanup funds, or before, to compel private cleanup efforts directly.⁷ This is the Liability Superfund. About $5.3 billion of what EPA has spent so far is designated "recoverable" from private parties, though so far EPA has recovered under $1 billion. How much has been spent directly by private parties is not known. Together with state and local funds, off-budget Superfund spending probably totals many times direct federal disbursements.

EPA's power to compel private spending is very broad. The Agency need not prove prior negligence by those who disposed of wastes. Standards of cleanliness articulated in 1990 apply retroactively to practices of 1950. Failure to comply with an order from the Agency can carry large fines and treble damages.⁸

All who generated chemical wastes that ended up at a site may be sued, whether or not their wastes have since been linked to any particular problem.⁹ Potentially liable parties include waste transporters, present owners of the land (regardless of when wastes were dumped at a site or released from it), past owners (if chemicals were dumped during their tenure), and banks that foreclose on a mortgage.¹⁰ Superfund defendants have included post offices, hospitals, restaurants, Elks Clubs, veterinarians, fire departments, high schools, hospitals, laundries, courthouses, department stores, and universities.

Under these rules, many hundreds of parties can be held liable for cleanup of a single site. Their liability is joint and several: the entire cost of cleanup can be charged to any single defendant, regard-

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⁴ 42 U.S.C. § 9604(c).
⁷ 42 U.S.C. §§ 9604(a), 9606(a).
⁸ Id. § 9609.
⁹ See id. § 9607(a)(3).
¹⁰ Id. §§ 9601(20)(A), 9607(a).
less of original fault. Defendants routinely turn around and file claims against their insurers. For older dumps, there are often multiple insurers and overlapping policies. No accepted principles have emerged on apportioning liability among these crowds of defendants.

EPA's current policy is to shift as much Superfund spending as possible to private ledgers. The Agency resists spending fund money even on orphan shares when any solvent defendant can be located. EPA will often target only a handful of deep-pocket defendants, and then leave it to them to recover what they can from others.

Superfund spending is supposed to pay for cleanup. In the first few years of Superfund, most responses involved relatively noncontroversial, emergency steps such as securing sites, removing exposed drums, closing off pathways of release, and arranging an alternative water supply.

In 1986, however, at a time of sharp disagreement about environmental policy with the Reagan administration, Congress promulgated new standards as part of Superfund reauthorization. These standards consist of a hodgepodge of legal phrases drawn from many different sources; they may change as fast as states promulgate new standards of cleanliness. The only clear message in the 1986 amendments is that Congress intended to establish a very strict definition of "clean." Key statutory words like "release" and "endangerment of public health" are left undefined and open-ended. EPA is directed to favor solutions that "permanently and significantly reduce[] the volume, toxicity or mobility of the hazardous substances . . . ." The law contains no other limits on how far remedies should go.

The absence of statutory specifics is significant because there are so many different ways to approach the problem at hand. Wastes can be kept away from people by on-site containment or removal to other sites. People can be kept away from wastes, with fences, signs, or evacuation. Wastes can be chemically converted by incineration, chemical treatment, or bioremediation. Public reaction to different approaches varies enormously and often diverges sharply from expert opinion about what is safe and cost effective.

Countless tradeoffs are possible. Simple solutions like warning people not to drink water from certain sources are often rejected because social controls of this kind are deemed insufficiently "permanent." Incineration breaks down complex chemicals but is often resisted by local residents because it entails public exposure of another kind. Removal seems permanent, but requires unearthing.

wastes and transporting them, sometimes through residential areas, and depends on locating more acceptable dumps or incinerators elsewhere. Ground water can be pumped and treated—an expensive process that can continue indefinitely. At one typical site, the remedy was at first expected to cost $2.9 million; the next alternative considered would have cost $42.6 million.\(^\text{14}\)

Whatever remedy is adopted, it is always possible to aspire for more. The acceptable level of cleanliness will depend upon future uses of the site. In practice, consistent with the 1986 Superfund Amendments, EPA has often assumed that today's sludge pond will be tomorrow's drinking water, and that today's dump will be tomorrow's schoolyard. EPA's risk assessments typically incorporate a series of pessimistic estimates that are compounded by direct multiplication.

Most of the sites on Superfund's National Priority List were in fact listed without sufficient testing to determine if they present any risk to health at all. A study by the National Research Council suggests that at least two out of three of the "priority" Superfund sites, and perhaps nine out of ten, pose no detectable risk to human health at all.\(^\text{15}\)

Scientific common sense, if there is such a thing, suggests that much of what is done under Superfund is ludicrously excessive. But that is a matter of intuition; rigorous science cannot dictate any clear stopping point to Superfund efforts. A risk analyst can always draw a larger circle in space and time, postulate new pathways for release, measure contamination at lower levels, and raise concerns about smaller, longer-term effects among larger groups of people. Epidemiological studies have identified no significant long-term health effects from Superfund dumps so far. But effects may always still be lurking just over the statistical horizon.

Without a scientific definition of the problem to begin with, science cannot say how much should be done to solve it. Work on a solution therefore expands to consume the funds available, and to accommodate the political pressure for spending them. Public perception and legal process—fear and funds—thus define the scope of the cleanup effort.

Fear is in plentiful supply, and easily intensified. The American public dreads chemical wastes much more than the scientific community does. Superfund itself is probably partly to blame. To the general

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public, billowing clouds of remedial smoke surely suggest a real bonfire behind. A similar, self-amplifying process may occur among scientists. Trans-scientific problems of the kind presented by Superfund tend to grow larger the more they are studied.

Nationwide, the cost of Superfund cleanup has mushroomed. EPA at first estimated a nationwide average cost per site of $7.2 million. That figure is now $30 million and rising fast. The number of sites said to require attention has grown equally fast. In 1980, Superfund was to deal with hundreds of sites, today thousands, and projections in the literature now refer to tens or even hundreds of thousands. Current projections as to how much spending might be needed for Superfund cleanup over the next several decades vary widely, from a low of $32 billion to a current high of $1.25 trillion.

In simple cases, where wastes are not too widely dispersed to begin with, and a single, solvent party owned a site all along and generated all its wastes, Superfund works acceptably. In cases like these, EPA oversees the relocation of wastes to approved dumps. Because pollution is modest, defendants are able to comply with very strict standards of cleanliness.

But most Superfund cases are not simple. Even identifying sites for cleanup has proved highly controversial. The quasi-scientific designation process is in fact highly subjective, and political considerations weigh heavily. The science becomes thinner still in the engineering analyses and cost-benefit comparisons that follow.

Uncertainties about what Superfund requires thus multiply exponentially. Low and high estimates of the possible health impacts of a dump are typically orders of magnitude apart. The range of responses that may be considered reasonable will vary in cost by a thousandfold or more. Allocating these costs among potentially liable parties and their insurers introduces another large margin of uncertainty. The stakes at the end of this legal Monte Carlo are enormous. A dispute between Shell and one of its insurers, for example, concerns $1.8 billion of Superfund expenses; approximately $2 billion is in dispute between Allied Signal and one of its insurers.

17. Id.; Schneider, supra note 6, at 7.
18. See 1 Committee on Environmental Epidemiology, supra note 15, at 76.
20. Peter Brimelow & Leslie Spencer, You Can't Get There from Here, Forbes, July 6, 1992, at 61.
Almost any amount of protective pre-cleanup spending thus makes sense to potential defendants. They shadow EPA's every step. Each of the many, duplicative studies is conducted in the expectation that it may prove decisive in subsequent litigation. Every defendant simultaneously prepares cases against every other major defendant. In one illustrative Superfund case, more than 100 depositions were taken. Each was attended by a dozen or more lawyers. Some lasted several days.

The immediate consequence of such procedures is paralytic delay. It is not unusual for over a decade to elapse between the identification of the problem and the signing of consent decrees by the government and the major defendants. In Superfund's first year, EPA completed forty emergency removals; today, EPA takes five years to decide whether a dump should be listed as a priority site. Since 1986, the time needed to clean up a site has doubled. In a decade of effort, cleanup has been completed at only fifty-four major sites, and at about 109 other sites. Today, about sixty-five to seventy cleanups are being finished each year.

Delays of this order can devastate the very communities that Superfund is supposed to help. Contact with Superfund becomes socially poisonous. The very fact that EPA has arrived to help can shatter property values, repel new industrial investment, and throw a region's entire future into doubt. Communities once eager to see wastes removed have since decided that they would prefer to see EPA depart instead.

While the pace of spending on cleanup slows, the pace of spending on overhead rises. Overall, at least one-quarter, and more likely one-half, of all Superfund resources are devoted to legal and administrative expenses; the fraction may well be higher. Insurers, the last targets in the collection line, devote at least eighty percent of their

22. CHURCH & NAKAMURA, supra note 14, at 82.
23. Id.
24. Id.
27. Superfund: Cleanup Force Needs Cleaning Up, STAR TRIB. (Minneapolis), June 25, 1993, at 20A.
29. Schneider, supra note 6, at 7.
Superfund spending, on average, to litigation rather than cleanup.\textsuperscript{30} This is "Superfund Syndrome," a fever of consultants, lawyers, accountants, and administrators who sap the program of useful energy.

The most cogent defense of Superfund is that it forces institutional America to take chemical wastes seriously. Some companies may perform "midnight cleanups" of old sites in the hope of escaping Superfund notice entirely. And the liability perils of Superfund give all generators strong incentives to handle wastes more carefully in the future.

Overdeterrence may create problems too, however. The savings from "midnight dumping" are higher now than ever before, if you get away with it, because the costs of legal disposal have been pushed so high. And cleanup, which requires the transport and redisposal of wastes, may itself be deterred by a law that draws no clear lines between good practices and bad. Civic-minded corporations, who might come forward willingly to assist in more modest cleanup efforts, have a strong incentive to "lie in the weeds" when cleanup costs rise to levels that threaten bankruptcy.

Many old sites could be cleaned up faster if reasonable rules were adopted to reduce uncertainty all around. Possible rules include thresholds to demarcate de minimis risks and standard guidelines for containment and cleanup, to replace site-by-site analyses. Costs could be reduced dramatically by winning acceptance for more realistic, albeit less perfect, cleanup strategies.

But such reforms would encounter sharp political opposition. Maintaining uncertainty about small risks can be as politically effective as proving that they are large. And the more complex and expensive the engineering mission, the more seriously the problem will be viewed in the public debate.

The financial side of Superfund provokes a similar debate. Industry-wide taxes are simple and clear. Reasonable, carefully targeted liability rules can be too. Eliminating joint and several liability, sheltering de minimis contributors from suit, and placing time limits on liability would help considerably with crowd control in the courts. Liability could be capped and apportioned according to straightforward, albeit arbitrary, formulae. EPA could take an earlier and firmer lead in proposing apportionments of liability and accept more mixed funding, in which the fund adopts orphan shares. Faced with clearer rules, more defendants would find it cheaper to clean up wastes than to litigate. Yet here too, uncertainty serves, for some, a tactical purpose.

\textsuperscript{30} Jan P. Acton & Lloyd S. Dixon, RAND Institute for Civil Justice, Superfund and Transaction Costs: The Experience of Insurers and Very Large Industrial Firms 24 (1992).
Superfund sends a message. The message may be all the more compelling if Superfund liability is extravagant, fickle, and ubiquitous.

This, then, is the central dilemma of Superfund. A pure Response Superfund, financed by excise taxes with minimum involvement by the courts, would hasten the cleanup of old sites. A pure Liability Superfund, financed by litigation, may encourage better handling of tomorrow's wastes. Most insurers and corporations would embrace a pure Response Superfund, which would get on with the job and then let them get on with business. Many organized environmental groups don't particularly want industry to get on with business. They believe that enforcing the rule of "polluter pays" is paramount.

The polluter isn't paying, however. Most of those who saved money by carelessly disposing of chemical wastes decades ago are long gone. Today, Superfund is funded by virtually all major manufacturing and energy concerns, many segments of the service industry, and through them insurers, shareholders, employees, and ultimately all consumers.

We approach the cleanup of chemical wastes much more frugally when the spending is recorded openly on the public budget. About one quarter of Superfund sites involve municipal wastes. But EPA often does not go after municipalities at all, and has backed regulatory changes to prevent private parties from suing for municipal contribution. EPA may not have much choice; almost half of the municipalities potentially liable under Superfund simply could not pay their share from their existing tax base. The Federal Government has been equally cautious in spending to clean up dumps created by the Departments of Energy and Defense, where the problems exceed those at all Superfund sites combined. The cleanup of federal and municipal sites could cost an estimated $280 billion, or about $2800 per U.S. household. The political resistance to spending such sums in pursuit of uncertain benefits is high. A comparable level of private spending impelled by Superfund is politically feasible only because the spending is hidden from the public eye.

One proposal that might put the Superfund budget back under the public eye and, simultaneously, reduce uncertainties and accelerate cleanup is to move spending fully onto public accounts. A traditional public works program, funded by an excise tax on the insurance

34. See id. at 16; Clean Sites, Inc., supra note 31, at 7.
industry, would replace private liability for cleaning up dumps created before the enactment of the 1986 Superfund Amendments; strict liability would remain in place for improper disposal after that date. The fund itself would be raised through broad-based payments (possibly as a surcharge on insurance premiums) from companies across industries. In its proposal for a new "National Environmental Trust Fund" along these lines, the AIG insurance company notes that a two percent surcharge on liability insurance premiums, for example, would raise $40 billion over the next decade.\(^{35}\) Somewhat similar programs have been adopted in several European countries.

A second possibility for reform would shift spending in the opposite direction, by devolving Superfund authority to state or municipal governments. The communities most directly affected by dumps would then control both the raising and the spending of Superfund money. As the law now operates, land is reclaimed at a cost in the range of $500,000 to $1 million per acre.\(^{36}\) More local control would keep Superfund efforts in line with political and economic reality. Given the flexibility and authority, many communities might opt for faster, more modest cleanup or containment, and channel the savings to other programs, including other measures to protect public health.

Superfund thus is a case study on public versus private approaches to an environmental problem that has attracted much public concern. And what the study reveals is that neither approach has worked at all well. There is no budget in the program, and no clear objective. Indeed, nobody has any clear idea how much we are spending, or what benefits we are receiving. The work simply expands to consume whatever money is available—and the total spending is defined by the number of Superfund lawyers engaged by all sides.

Perhaps the most telling aspect of Superfund is how it has operated—or really failed to operate—at the point where the "public" and "private" sides of the program meet. EPA has done all it can to insulate small "public" entities like municipalities from responsibility, while the big public entities, like the Departments of Energy and Defense, are simply not liable at all under Superfund. What we find then, is this: when the issue of cleaning up hazardous waste is faced squarely in the public arena, with the public budget on the table, we spend much more cautiously and frugally than when we are able to pretend that "someone else" is really paying.

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With many Superfund sites today, the most sensible approach would probably be to take modest measures to isolate and contain the site, and then to do little more. When that approach has been properly engaged in the public debate, that is more or less what we have done. It is in the private arena—the arena of endless tort liability—that we have wasted incalculable sums of money and pursued the mirage of perfect cleanliness—what EPA itself calls its "dirt eating" rules.

There is no doubt that the choice between public and private approaches to environmentalism is an important one. And in many instances, where a reasonable social consensus has already been reached, private mechanisms, well-anchored in tort and contract, are clearly more efficient than public ones.

Once we have well-defined, realistic, broadly accepted environmental objectives, objectives that have been reconciled with other priorities in society, then the debate over procedure and so on is appropriate. And at that point, as Boyden Gray has argued, the more efficient, private procedures should be given serious attention. On the other hand, once there is a clear consensus of what is needed, public approaches can probably perform reasonably well too. Once there is a solid social consensus, the process may not be that critical any more.

But when no such consensus has been forged, the only thing to do is to set about forging it—and that has to be done in the open, in the public arena. A massive delegation of consensus-forging responsibilities to the courts and private litigators is probably even worse than leaving the issues in the politicized hands of legislatures and regulatory agencies. Millions of small tort and contract decisions will not magically coalesce into coherent public policy, at least not when those decisions are reached under the sweeping pseudo-private law mandates like those incorporated in Superfund.

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