

**Report for Recommendation 92-9**

**De Minimis Settlement Under Superfund**

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## Introduction

In the last decade, following the passage in 1980 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly referred to as Superfund, our society has begun focusing its attention on the cleanup of hazardous waste sites. The task is a daunting one. There currently are approximately 1200 sites on the National Priorities List (NPL), the list of most hazardous sites, and it is likely that many more will be added to this list in the coming decades. The average cleanup cost at each of these sites is about \$25 million. The aggregate cost of remedying the hazardous waste problem has been placed at several hundred billion dollars.

Liability for these cleanup costs has been imposed on a very broad set of parties--practically any party that had any connection with hazardous substances placed at a site in need of a cleanup. Defendants at typical Superfund sites include not only the large industrial firms, but a large array of small entities--local dry cleaners, hospitals, and even pizza parlors. Some parties bear a large share of the liability at a site--most often, because they generated a large proportion of the hazardous substances--but many others--both large and small firms--will have generated relatively little and be responsible for perhaps only a few thousand dollars in cleanup costs. Unfortunately, the process for apportioning the cleanup costs at a site is cumbersome and gives rise to substantial transaction costs, principally in the form of legal fees. Parties that are responsible for only a small share of the cleanup costs might have to disburse several times this amount in transaction costs.

Congress expressed concern about this scenario in 1986 when it reauthorized the program and amended the statute in substantial ways. This concern was translated into a statutory section designed to make it easier for such parties, labeled as *de minimis* parties, to enter into early settlements with EPA, thereby limiting their disbursements of transaction costs.

This study assesses the functioning of the *de minimis* settlement program, and makes recommendations for its improvement. We believe that the ultimate success of the Superfund scheme, at least in its current form, is closely linked to the effectiveness of its program for *de minimis* settlements. As the statute comes up for periodic reauthorization, next in 1994, the misallocation of social resources that would result in the absence of a well functioning program for *de minimis* settlements may well provide the impetus for a broad

reconceptualization of the Nation's approach to the problem of hazardous waste remediation, and perhaps even of our commitment to this goal.<sup>1</sup>

This study is organized as follows. Part I provides the background necessary to understand the context in which *de minimis* settlements take place. Part II discusses the objectives that ought to guide the *de minimis* settlement program. Part III analyzes the various guidance documents concerning *de minimis* settlements issued by the Environmental Protection Agency (EPA). Part IV consists of an empirical study of the *de minimis* settlements entered through June 30, 1992. Part V discusses the interviews that we conducted with the attorneys charged with primary responsibility for *de minimis* settlements at each of EPA's regional offices and with selected representatives of private defendants in Superfund actions, both *de minimis* and *nonde minimis*. Part VI recommends a number of improvements for the program.

## I. The Nature of the Problem

To understand the context in which issues involving *de minimis* settlements arise, we discuss the Superfund liability scheme, the process by which hazardous waste sites are cleaned up, the transaction costs of assigning responsibility among the various defendants, and, finally, the statutory provisions governing settlements in general and *de minimis* settlements in particular.

### A. The Liability Scheme

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA),<sup>2</sup> commonly referred to as Superfund, and the Superfund Amendments and Reauthorization Act of 1986 (SARA),<sup>3</sup> set forth a far-reaching scheme imposing liability for the cleanup of hazardous waste sites. The liability provisions are triggered by the release or threat of release of hazardous substances into the environment. For each site at which such a release occurs, the statute defines four categories of liable parties: the generators of the hazardous substances present at the site, the transporters of

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<sup>1</sup>For example, a recent report presents transaction costs as one of the central criteria by which to evaluate the relative merits of different policies. See Katherine N. Probst & Paul R. Portney, *Assigning Liability for Superfund Cleanups: An Analysis of Policy Options* (RFF Report 1992).

<sup>2</sup>Pub. L. No. 96-510, 94 Stat. 2767 (1980) (codified as amended at 42 U.S.C. \_\_9601-9675).

<sup>3</sup>Pub. L. No. 99-499, 100 Stat. 1613 (1986).

these substances to the site, the current owner of the site, and prior owners during whose period of ownership there was disposal of hazardous substances at the site.<sup>4</sup> These parties are liable for the costs of cleanup of the site, as well as for damage to natural resources under the control of the federal or state governments, or Indian tribes.<sup>5</sup>

The liability standard under the statute is strict liability, rather than negligence.<sup>6</sup> Moreover, the courts have fashioned a federal common law rule, informed by the Restatement (Second) of Torts,<sup>7</sup> holding parties jointly and severally liable if the harm at the site is indivisible.<sup>8</sup> Defendants held jointly and severally liable can seek contribution from other defendants.<sup>9</sup> The existence of joint and several liability is significant in the Superfund context because, given the significant periods of time--often several decades--between the disposal of hazardous substances and the cleanup, it is particularly likely that some liable parties will not be found, or will be insolvent. The remaining defendants will then have to bear a disproportionate amount of the costs.

The statute provides a limited set of defenses. A party can escape liability only if it can show by a preponderance of the evidence that the release or threat of release was caused solely by an act of God, an act of war, an act or omission of a third party, or a combination of these causes.<sup>10</sup> Not surprisingly, only the third-party defense has been of practical significance. In addition to causation by a third party, a defendant seeking to escape liability in this way must show that it took due care with respect to the hazardous substances and precautions against foreseeable acts or omissions of the third party, and that such acts or omissions did not occur in connection with a contractual relationship with the defendant.<sup>11</sup> Thus, for example, it is clear

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<sup>4</sup>42 U.S.C. § 9607(a). Under a limited set of circumstances a prior owner can be liable even if there was no disposal during its period of ownership. Liability will attach if the prior owner had actual knowledge of the release or threatened release when it owned the property, and transferred it without disclosing such knowledge. 42 U.S.C. § 9607(35)(C).

<sup>5</sup>42 U.S.C. § 9607(a), (f)(1).

<sup>6</sup>42 U.S.C. § 9601(32) states that the liability standard shall be the same as under 33 U.S.C. § 1321—a provision of the Clean Water Act. The courts have determined that strict liability applies to these actions. *See, e.g., Tanglewood East Homeowners v. Charles Thomas, Inc.*, 849 F.2d 1568 (5th Cir. 1988); *New York v. Shore Realty Corp.*, 759 F.2d 1032, 1042 (2d Cir. 1985).

<sup>7</sup>Restatement (Second) of Torts § 433A (1965).

<sup>8</sup>*See, e.g., United States v. Monsanto Co.*, 858 F.2d 160, 171 (4th Cir. 1988), *cert. denied*, 109 S. Ct. 3156 (1989); *United States v. Chem-Dyne Corp.*, 572 F. Supp. 802, 805-10 (S.D. Ohio 1983).

<sup>9</sup>42 U.S.C. § 9613(f)(1).

<sup>10</sup>42 U.S.C. § 9607(b).

<sup>11</sup>42 U.S.C. § 9607(b)(3).

that a generator cannot escape liability by arguing that the problem was caused by the transporter with which it contracted for the disposal of the wastes.

A more complex situation arises if the current owner of the site seeks to establish a third-party defense by maintaining that the problem was caused by a prior owner. The statute provides that the term "contractual relationship" for the purpose of the third-party defense includes instruments transferring title to land, unless the purchaser acquired the property after the disposal of the hazardous substances and did not know or had no reason to know that the hazardous substances responsible for the release or threatened release had been present at the site.<sup>12</sup> To establish the latter, the purchaser must show that, at the time of the acquisition of the property, it undertook "all appropriate inquiry" into the property's prior uses consistent with "good commercial or customary practice."<sup>13</sup> While this provision is commonly referred to as the "innocent landowner" defense, it is not, in fact, an independent mechanism for escaping liability. Instead, it is a definition of the term "contractual relationship" in the context of land transactions.

Finally, the existence of the third-party defense establishes, by implication, that causation is not an element of the plaintiff's cause of action. Instead, to escape liability, the defendant has the burden of establishing an alternative cause for the release or threatened release.

## B. The Cleanup Process

To understand the context for *de minimis* settlements, it is important to review both the process of cleanup of hazardous waste sites and the allocation of responsibility for this cleanup among EPA and potentially responsible parties (PRPs), generally ones who bear a large share of the liability. For example, with respect to the first issue, one of the most compelling reasons for offering early settlements to parties who bear only a small share of the liability is the very long time that elapses between the discovery of a site and its ultimate cleanup--eliminating *de minimis* parties relatively early in this process can lead to the saving of the substantial costs that they would expend in legal representation (and perhaps, scientific and engineering consultants), while they faced potential liability.

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<sup>12</sup>42 U.S.C. § 9601(35)(A)(i). Of less practical importance are parallel provisions applying if the defendant is a governmental entity that acquired the property involuntarily or through the exercise of eminent domain, or if the defendant acquired the property by inheritance or bequest. 42 U.S.C. § 9601(35)(A)(ii), (iii).

<sup>13</sup>42 U.S.C. § 9601(35)(B).

The allocation of responsibility between EPA and the major PRPs at a particular site is also of critical importance. Many of the issues raised by a *de minimis* settlement concern its effect on subsequent settlements pursuant to which the major parties agree to undertake the cleanup of the site.

## 1. Stages of the Cleanup Process

There are seven relevant stages in the cleanup process.<sup>14</sup> The early stages involve the screening of sites to determine which pose the most serious health problems, and should therefore become the focus of EPA's attention. The later stages involve the cleanup of these sites.

First, EPA must become aware of a site's existence. Generally, a site comes to the Agency's attention as a result of citizen complaints or nomination by a state. Significantly, there is no federal site discovery program. When EPA becomes aware of a site, the site is placed in EPA's CERCLA Information System (CERCLIS), an inventory of sites that potentially require cleanup. To date, over 33,000 sites have entered the CERCLIS database.

Second, EPA conducts a Preliminary Assessment (PA) and, if warranted, a Site Inspection (SI) to ascertain, in increasing level of detail, the risks posed by the site. At each of these stages, many sites are classified as sufficiently harmless to warrant no further attention.

Third, sites are then ranked under the Hazard Ranking System (HRS). The HRS is a composite score that measures the risk of the site by reference to three possible routes of human exposure: groundwater, surface water, and air.<sup>15</sup>

Fourth, sites that receive a score of 28.50 or higher are placed on the National Priorities List (NPL). To date, approximately 1200 sites have entered the NPL. Only sites listed on the NPL are eligible for the expenditure of money for remedial action from the Hazardous Substances Trust Fund (better known as the Superfund); this limitation does not apply to removal actions (quicker and less extensive measures often undertaken in the face of emergencies). When Congress enacted CERCLA in late 1980, it authorized the appropriation of \$1.6 billion for the Superfund during the first five years of the program; an additional \$8.5 billion for 1986-91 and \$5.1 billion for 1991-94 were authorized in 1986 and 1991, respectively. It is important to underscore, however, that the primary means for the financing of cleanups, is

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<sup>14</sup>For discussion, see, e.g., Jan Paul Acton, *Understanding Superfund: A Progress Report* (Rand Corporation 1989); U.S. Congress, Office of Technology Assessment, *Coming Clean: Superfund's Problems Can Be Solved* (1989) [hereinafter cited as *Coming Clean*].

<sup>15</sup>In fact, the air subscores are frequently not calculated if the two water routes lead to a score of over 28.50. See *Coming Clean*, *supra* note 14, at 116-17.

the liability scheme discussed in the previous section. The Superfund serves as a residual source of funding, to pay for the cleanup of sites for which there are no solvent PRPs,<sup>16</sup> and, more frequently, to advance funds in other sites until EPA can obtain a settlement or a judgment against the PRPs. While some *de minimis* settlements have involved removal actions for sites not listed on the NPL, the vast majority have been entered in connection with remedial actions for NPL sites.

For sites on the NPL, the fifth stage of the process involves the preparation of a Remedial Investigation/Feasibility Study (RI/FS). This stage consists of a more detailed examination of the site and a preliminary study of possible remedies.

Sixth, EPA issues a Record of Decision (ROD). This document contains an analysis of alternative remedies, with their expected costs, and selects the remedy that will be implemented at the site.

Seventh, comes the Remedial Design and Remedial Action (RD/RA). The former is a more detailed design of the remediation technique chosen in the ROD. The latter is the actual cleanup of the site.

The process, however, does not always occur in this linear fashion. Cleanup activities at a site are often divided into operable units; one unit, for example might involve soil removal and, another, groundwater treatment. The different operable units may progress at different rates; one might be at the RD/RA stage whereas the other might be at the RI/FS stage.

For the purpose of this study of *de minimis* settlements, the stages that occur after listing on the NPL are of most relevance. Except in the case of emergency removal action in nonNPL sites, it is only after listing on the NPL that it becomes clear that PRPs will have to pay for the cleanup costs at the site. An early *de minimis* settlement is therefore one that occurs after listing on the NPL but prior to the completion of the RI/FS; a late settlement occurs in the RD/RA phase.

Also relevant to an understanding of the issues raised by *de minimis* settlements is the length of time that elapses between the various stages. Obviously, the call for *de minimis* settlements during the early stages of the process is more compelling if this process is a slow one.

A Rand Corporation study completed in 1989 showed that, for a site that ultimately gets listed on the NPL, it takes on average 43 months between the time EPA becomes aware of a site's existence and its listing. Twenty months

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<sup>16</sup>If there is at least one solvent PRP and the harm at the site is indivisible, EPA can recover the full cleanup costs as a result of the rule of joint and several liability, even if this PRP contributed only a small share of the hazardous substances. EPA may decide to contribute to such a cleanup with Superfund moneys pursuant to the mixed funding provisions of 42 U.S.C. §9622(b)(1).



then elapse until the beginning of the RI/FS, 38 additional months until the issuance of the ROD; the RD/RA takes an additional 43 months.<sup>17</sup> Thus, about eight-and-a-half years elapse, on average, between the listing on the NPL and the completion of the RD/RA--a time during which most PRPs will expend transaction costs if their liability remains unresolved.

## 2. Allocation of Cleanup Responsibilities between EPA and the PRPs

Of the post-listing stages, the RI/FS and the RD/RA can be conducted by EPA, the state in which the site is located, or a group of PRPs.<sup>18</sup> In contrast, the issuance of the ROD is the sole responsibility of EPA. By the end of 1990, PRPs had financed and supervised approximately 35% of RI/FSs and 45% of RD/RAs.<sup>19</sup>

From the perspective of the PRPs, it can be desirable to conduct the RI/FS and RD/RA activities for two principal reasons. First, they might believe that they can supervise contractors more effectively than EPA, and therefore, that the cost of a given cleanup will be lower if the PRPs have taken the lead. Second, they might believe that, by conducting the RI/FS and/or the RD/RA themselves, they will be able to persuade EPA to accept cleanups that are less extensive than those that EPA would have chosen.<sup>20</sup>

From EPA's perspective, PRP-led cleanups are desirable because they do not involve the expenditure of Superfund moneys, or, more accurately, the advance of such funds pending a settlement for cleanup costs or a judgment following litigation. Moreover, PRP responsibility for some sites can enable EPA to concentrate its limited managerial resources at sites in which, because of the lack of plausible alternatives, it must conduct the cleanup itself.

EPA has the statutory authority to order PRPs to perform cleanups.<sup>21</sup> More commonly, however, PRP-led cleanups occur as a result of settlements with

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<sup>17</sup>See *Coming Clean*, *supra* note 14, at 16. The RD/RA figures are based on a small number of observations, since very few sites had made it to this stage. See *id.* at 26.

<sup>18</sup>There has been some recent controversy over whether the PRPs can conduct RI/FSs.

<sup>19</sup>See Jan Paul Acton & Lloyd S. Dixon, *Superfund and Transaction Costs: The Experiences of Insurers and Very Large Industrial Firms* 9 (Rand Corporation 1992) [hereinafter cited as Acton and Dixon].

<sup>20</sup>For discussions of whether there exist differences in remedy selection when PRPs lead the cleanup, see, e.g., *Coming Clean*, *supra* note 14, at 161-74; *A Comparative Analysis of Remedies Selected in the Superfund Program During FY 87, FY 88, and FY 89*, OSWER Directive #9835.13 (June 20, 1990).

<sup>21</sup>See 42 U.S.C. §9606(a).

EPA.<sup>22</sup> Such a course of action was forcefully advocated by a 1984 recommendation of the Administrative Conference of the United States,<sup>23</sup> and was specifically endorsed in the congressional reports accompanying the 1986 amendments.<sup>24</sup> Consistent with this direction, EPA's ultimate goal often is an agreement under which the PRPs would perform the RD/RA.<sup>25</sup> Moreover, as we explain below, the Regions often evaluate the desirability of *de minimis* settlements primarily on the basis of their expected effect on a settlement with the major parties pursuant to which they would undertake the cleanup.<sup>26</sup>

### C. Transactions Costs

Perhaps the central justification for *de minimis* settlements is that they provide a way to reduce the transaction costs of parties who bear a small percentage of the liability, but for whom the cost of representation during the protracted cleanup process might nonetheless be substantial. As EPA itself noted:

"The legal fees and other transaction costs of negotiating and litigating with the Government, compounded by the potential costs of asserting and defending claims for contribution with other PRPs at the site, often could exceed the amount such minimal contributors could be expected to pay, even under a settlement or judgment unfavorable to them."<sup>27</sup>

Ideally, there would be good data on the transactions costs expended by *de minimis* parties. While there have been a few empirical studies about transaction costs borne by private parties as a result of the Superfund liability scheme, none have focused explicitly on the costs imposed by the scheme on

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<sup>22</sup>42 U.S.C. § 9622(a) provides the statutory authority for such settlements for such settlements.

<sup>23</sup>See 1 C.F.R. § 305.84-4.

<sup>24</sup>"Congress finds that this recommendation ... is generally consistent with the goals and purposes of ... [CERCLA] ... and that the Administrator should consider ... and implement it to the extent that the Administrator determines that such implementation will expedite the cleanup of hazardous substances which have been released into the environment." H.R. 2005, § 154, *Legislative History of the Superfund Amendments and Reauthorization Act of 1986* at 1457; see S. 51, § 139, *id.* at 947.

<sup>25</sup>For discussions of EPA's shift toward this goal, see, e.g., *Tracking Superfund: Where the Program Stands* 43 (1990); *Coming Clean*, *supra* note 14, at 161-74.

<sup>26</sup>See *infra* IV. C. 1; V. B.

<sup>27</sup>OSWER Directive #9834.7, p. 2.

*de minimis* parties. Some of the conclusions of the more general studies are nonetheless relevant.

Most recently, the Rand Corporation completed a study of the transaction costs faced by very large industrial firms.<sup>28</sup> The Rand researchers asked eight firms on the Fortune 100 list of U.S. industrial companies to participate in the study; five agreed to do so.

The study defined transaction costs as costs that, unlike investigation and remediation costs, "do not contribute directly to the cleanup process; instead, they are concerned with the assignment of financial liability and legal issues."<sup>29</sup> Pursuant to this definition, all legal expenditures were classified as transaction costs. Engineering and nonlegal expenditures were classified as transaction costs if, for example, their purpose was to search for another PRP or contest a remedy chosen by EPA. Transaction costs were divided into internal costs (in-house lawyers and scientific staff) and external costs, which included payments to PRP committees--committees formed by the PRPs to represent them in negotiation and litigation with EPA.<sup>30</sup> On average, 75% of the transaction costs were for external or internal attorneys.<sup>31</sup>

The study found that, on average, 21% of the total outlays by a PRP were for transaction costs. It then analyzed how a firm's share of transaction costs varied across sites with different characteristics; for each firm, it considered only sites at which the firm had spent at least \$100,000. Of this sample, the average share of transaction costs with each site weighted equally was 30%, whereas the dollar-weighted average was 13%; the large difference between the two averages is attributable to the fact that sites with the largest expenditures have the lowest ratio of transaction costs.<sup>32</sup>

There was, however, considerable variation in the share of transaction costs. Of most relevance, the share of transaction costs was inversely related to a firm's total expenditures at a site. Thus, whereas the average share across sites was 5% (4%, if dollar-weighted) for firm expenditures of over \$3 million, it was 38% (39%, if dollar-weighted) for firm expenditures in the \$100,000 to \$500,000 range. An extrapolation would suggest that this share continues to rise as a party's share of the liability decreases.

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<sup>28</sup>Acton & Dixon, *supra* note 19.

<sup>29</sup>Acton & Dixon, *supra* note 19, at 36.

<sup>30</sup>Acton & Dixon, *supra* note 19, at 36-39.

<sup>31</sup>Acton & Dixon, *supra* note 19, at 41.

<sup>32</sup>Acton & Dixon, *supra* note 19, at 48. Both these percentages, and all percentages discussed below would be four percentage points higher if costs that could not be attributed to either transaction costs or investigation and remediation were added to the transaction cost figures. *Id.*

Of course, it is not possible to draw detailed conclusions from the Rand study about the share of transaction costs of *de minimis* parties. While both large and small firms may be *de minimis* parties at a particular site, the pattern of expenditures of transaction costs may be quite different.<sup>33</sup> On the one hand, a large firm is probably more likely to be a party at a larger number of Superfund sites; as a result of greater expertise, it may be able to respond to Superfund cases more efficiently. On the other hand, a large firm may be more concerned about the impact of a particular settlement on other cases, and may therefore be more willing to expend transaction costs. In addition, the Rand study made no attempt to calculate the share of transaction costs for firms that spent less than \$100,000 at a site.

It is worth noting, however, that the term *de minimis* can encompass a very wide range of potential liability. The average cleanup cost at an NPL site is approximately \$25 million. A generator that contributed 1% of the waste would, in all likelihood, qualify for *de minimis* status,<sup>34</sup> and would face a liability of \$250,000, even without the payment of a premium, and would be within the range of transaction costs covered by the Rand study. In contrast, the share of liability of many *de minimis* parties is only a few thousand dollars, or even less. For such parties, any sort of legal representation would produce an extremely high share of transaction costs.

#### D. The Settlement Provisions

During the debates preceding the 1986 amendments Congress paid considerable attention to the transaction costs of the Superfund program as well as, more particularly, the transaction costs borne by parties who face only a small share of the liability. For example, in introducing the Senate amendments, Senator Domenici expressed general concern with the transaction costs generated by litigating Superfund liability. He explained the desirability of encouraging the government to settle "with small contributors without full-blown litigation."<sup>35</sup> Senators Bentsen and Simpson echoed this language, with Senator Bentsen adding that small contributors would be able to pay "their appropriate share and then they would be removed from the litigation."<sup>36</sup>

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<sup>33</sup>The Rand Corporation is currently embarked on a study of transaction costs borne by mid-size and small companies at Superfund sites.

<sup>34</sup>See *infra* Section IV. C. 1.

<sup>35</sup>A *Legislative History of the Superfund Amendments and Reauthorization Act of 1986* at 1241.

<sup>36</sup>*Id.* at 1242.

Along similar lines, Representative [now Senator] Hank Brown expressed concern with the impact of Superfund on small business *de minimis* contributors--"grocery stores, body shops, paint stores, car washes, colleges and universities." He found that, though these entities were said to be responsible for only 0.3% of the hazardous wastes generated, the threat of joint and several liability was enough to scare off potential lenders and insurers: "The impact of this ripples through the economy as small business finds itself unable to borrow needed capital for expansion and investment due to the contingent liabilities generated under the CERCLA liability system."<sup>37</sup>

Congress translated these concerns into statutory provisions seeking to encourage settlements in general--section 122<sup>38</sup>--and *de minimis* settlements in particular--section 122(g)<sup>39</sup>. The latter section provides that "whenever practicable and in the public interest," the Administrator "shall as promptly as possible reach a final settlement with a potentially responsible party ... if such settlement involves only a minor portion of the response costs at the facility."<sup>40</sup> The following additional conditions must be met. Generators and transporters can qualify for *de minimis* settlements if the amount of the hazardous substances contributed and the hazardous effects of these substances are both minimal in comparison to other hazardous substances at the facility.<sup>41</sup>

In turn, landowners can qualify for *de minimis* status if they "did not conduct or permit the generation, transportation, storage, treatment, or disposal of any hazardous substance at the facility"<sup>42</sup> and "did not contribute to the release or threat of release of a hazardous substance at the facility through any act or omission."<sup>43</sup> In addition, the party must not have purchased the property "with actual or constructive knowledge that the property was used for the generation, transportation, storage, treatment, or disposal of any hazardous substances."<sup>44</sup>

*De minimis* settlements have several important features. First, the Administrator may provide a party to such a settlement with a covenant not to sue, unless such a covenant would be inconsistent with the public interest.<sup>45</sup>

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<sup>37</sup>*Id.* at 2273.

<sup>38</sup>42 U.S.C. § 9622.

<sup>39</sup>42 U.S.C. § 9622(g).

<sup>40</sup>42 U.S.C. § 9622(g)(1). The statute places this responsibility on the President, who has delegated this authority to the EPA Administrator.

<sup>41</sup>42 U.S.C. § 9622(g)(1)(A).

<sup>42</sup>42 U.S.C. § 9622(g)(1)(B)(ii).

<sup>43</sup>42 U.S.C. § 9622(g)(1)(B)(iii).

<sup>44</sup>42 U.S.C. § 9622(g)(1)(B).

<sup>45</sup>42 U.S.C. § 9622(g)(2). The one exception concerns covenants not to sue for natural resources damages, which are governed by a different provision. See 42 U.S.C. § 9622(j).

The Administrator is directed to grant such a covenant as soon as possible after he has the information necessary to engage in such an action.<sup>46</sup> Second, a *de minimis* settlement can be embodied either in a consent decree or administrative order. The latter must be approved by the Attorney General if they involve sites for which the cleanup costs are over \$500,000.<sup>47</sup> Third, a party to a *de minimis* settlement shall not be liable for contribution to other defendants.<sup>48</sup>

Finally, the statute provides that EPA's claim against nonsettling defendants shall be reduced by the amount of the settlement,<sup>49</sup> a pro tanto set-off modeled after the Uniform Contribution Among Tortfeasors Act.<sup>50</sup> Thus, if EPA settles with some defendants for less than their proportional share, the remaining defendants will bear more than their proportional share.<sup>51</sup>

As indicated above, the procedures for *de minimis* settlement are part of a more general set of settlement provisions that apply to *nonde minimis* parties as well. They differ, however, in several important ways. First, only in the case of *de minimis* parties does the statute appear to constrain, albeit not completely, the discretion of the Administrator to determine whether to settle a claim. Whereas in *nonde minimis* cases, the statute states that the Administrator "may" compromise or settle a claim,<sup>52</sup> for *de minimis* parties, he "shall" do so; this obligation is qualified only by the "[w]henever practicable and in the public interest" clause.

Second, there is a greater sense of immediacy for *de minimis* settlements. One subsection states that such settlements shall be entered into "as promptly as possible;"<sup>53</sup> another provides that such a *de minimis* claim be settled, and a covenant not to sue extended "as soon as possible" after the Administrator has

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<sup>46</sup>42 U.S.C. § 9622(g)(3).

<sup>47</sup>42 U.S.C. § 9622(g)(4).

<sup>48</sup>42 U.S.C. § 9622(g)(5).

<sup>49</sup>42 U.S.C. § 9622(g)(5).

<sup>50</sup>*Unif. Contribution Among Tortfeasors Act* § 4(a), 12 U.L.A. 98 (1955). For an economic analysis of this set-off rule, see Lewis A. Kornhauser & Richard L. Revesz, *Multi-Defendant Settlements: The Impact of Joint and Several Liability* (manuscript under submission). For a comparison of alternative set-off rules, see Lewis A. Kornhauser & Richard L. Revesz, *Multi-Defendant Settlements: The Choice Among Set-Off Rules* (manuscript).

<sup>51</sup>An alternative set-off rule, embodied in the Uniform Comparative Fault Act would reduce the plaintiff's claim against nonsettling defendants by the settling defendant's proportional share of liability. *Unif. Comparative Fault Act* § 6, 12 U.L.A. 56 (Supp. 1991). Under this rule, if the plaintiff settles for too little it will not be able recover the shortfall from the nonsettling defendants. See Kornhauser & Revesz, *supra* note 50, at pp. 9-16.

<sup>52</sup>42 U.S.C. § 9622(a), (h)(1).

<sup>53</sup>42 U.S.C. § 9622(g)(1).

the necessary information.<sup>54</sup> None of the other settlement provisions set forth such a time frame.<sup>55</sup>

Third, and most importantly, it is far easier for *de minimis* defendants to obtain a covenant not to sue. The statute authorizes the Administrator to grant a settling *de minimis* defendant protection from further suit except where such an action would be "inconsistent with the public interest."<sup>56</sup> In contrast, in the case of *nonde minimis* defendants, the Administrator must make the more exacting finding that a covenant not to sue "is in the public interest," and must make, in addition, other findings, including that the covenant not to sue would expedite the cleanup.<sup>57</sup>

## II. Objectives of De Minimis Settlements

To be able to assess EPA's administration of the *de minimis* settlement program, it is necessary to establish, as a benchmark, the contours of a desirable program that is consistent with the statutory directive. We therefore proceed by setting forth several governing principles.

### A. Deriving Some General Principles

#### 1. Characterizing EPA's Role

First, one must distinguish between two plausible characterizations of EPA's role under Superfund. On the one hand, it is the government agency charged with improving social welfare by responding to serious threats to health and the environment. On the other hand, it is the plaintiff in individual Superfund actions: it is natural that, like plaintiffs generally, it would attempt to maximize its recovery net of the transaction costs that it must expend, or, in the event of a settlement, maximize the scope of the cleanup that the major parties agree to perform.

"EPA as plaintiff" would be indifferent to the transaction costs expended by the PRPs--it would be concerned only with its own transaction costs. Thus, for example, it might concentrate solely on reaching a settlement pursuant to which the major parties perform a cleanup, without paying any attention to the transaction costs that *de minimis* would have to bear in the interim.

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<sup>54</sup>42 U.S.C. \_9622(g)(3).

<sup>55</sup>See 42 U.S.C. \_9622(a), (g).

<sup>56</sup>42 U.S.C. \_9622(g)(2).

<sup>57</sup>42 U.S.C. \_9622(f)(1).

In fact, under this characterization, EPA might direct the *de minimis* parties to deal directly with the major parties. Because the major parties would naturally focus on their individual interests and not on the social interest, the latter scenario is guaranteed to ensure that the final outcome will not be one that has, as one objective, the minimization of transaction costs borne by the *de minimis* parties.

"EPA as promoter of social welfare" would follow a different decision process. It would first rank scenarios on the basis of its own transaction costs or the extent of the cleanup. Next, from the scenarios ranked most highly, it would choose that one which minimizes the transaction costs borne by the PRPs in general, and *de minimis* PRPs in particular. More importantly, however, EPA should be willing to accept an outcome under which it expends higher transaction costs, or accepts a somewhat less extensive cleanup, if doing so sufficiently lowers the transaction costs imposed on PRPs. We stress that we are merely setting forth a general principle, not determining how this trade off should be conducted in an individual case.

We need not address the question of whether it ever is appropriate for a government agency to be indifferent to the transaction costs that it imposes upon its opponents in litigation. Here, Congress explicitly focused on this issue, enacted a statutory section directed exclusively to this problem, and indicated, in no uncertain terms, the importance of the objective of minimizing the transaction costs of *de minimis* parties.<sup>58</sup>

## 2. Ensuring Fairness

The second question concerns the fairness of settlements to the various PRPs. If EPA sought to take full advantage of the existence of a rule of joint and several liability in the case of indivisible harms, it might choose to litigate only against a small group of large parties. It could leave to these PRPs the task (and related transaction costs) of filing third-party actions against smaller PRPs and might then seek to have the third-party actions severed and stayed until the conclusion of its case against the major parties--a technique that EPA used occasionally in the past.

Or, in a more extreme fashion, EPA could grant the smaller parties contribution protection very early in the process in return for a nominal settlement and remove even the irritant of having to argue in favor of staying

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<sup>58</sup>There is a sense in which the two characterizations of EPA are not that far apart. The Superfund program depends on continued political support, particularly given Congress' decision to require relatively frequent reauthorizations. To the extent that EPA is indifferent to the impact of the scheme on PRPs, it will contribute to strengthening of public opposition to the program--presumably an outcome that EPA would not favor in its self-interested role.



third-party actions. As long as a solvent nonsettling party remained, EPA could recover its full outlays, since under the *pro tanto* set-off rule its claim against the nonsettling parties would be reduced only by the amount of the settlement. By embodying such settlements in administrative orders on consent rather than consent decrees, EPA might even make them largely immune to judicial review.

There is a tradeoff between being fair to the major parties and reducing the transaction costs of the *de minimis* parties. The former objective calls for requiring the *de minimis* parties to pay their apportioned share of the cleanup costs, whereas the latter would seek to eliminate them from the litigation as early as possible regardless of what they pay. Of course, to the extent that it takes time to determine the amount of a fair share--under EPA's approach the fair share is generally the proportion of hazardous substances contributed to the site--fairness will be bought at the price of greater transaction costs.

The issue of fairness arises in a stark manner because of the combination of three legal rules: joint and several liability, *pro tanto* set-off, and contribution protection. These rules permit EPA to settle with one party, give it contribution protection even if the amount of the settlement is inadequate, and nonetheless be able to recover fully from other parties.

EPA's general approach under CERCLA has been to take advantage of the benefits of joint and several liability. For example, it consistently requires solvent parties to pay for the share of insolvent ones. At the same time, however, it has sought to mitigate the potential unfairness of joint and several liability. For example, as we show in an article that provides a detailed theoretical analysis of the liability and settlement rules under Superfund, a plaintiff facing multiple defendants can generally maximize its recovery from settlements by making the party responsible for the smaller share of the liability pay a disproportionately large amount.<sup>59</sup> EPA has not sought to exploit this possibility. Instead, among solvent parties, it has consistently apportioned responsibility based on volumetric contributions.<sup>60</sup>

We believe that EPA's concern with fairness--albeit fairness consistent with taking full advantage of joint and several liability--has been the product, at least in part, of congressional unease about the potentially harsh effects of joint and several liability. Indeed, at the time of the consideration of the 1986 amendments, EPA made representations to Congress that it would try to

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<sup>59</sup>Lewis A. Kornhauser & Richard L. Revesz, *Multi-Defendant Settlements: The Impact of Joint and Several Liability*, *supra* note 50.

<sup>60</sup>As we explain above, we do not regard the premiums that *de minimis* parties pay in return for finality even in the event of cost overruns to be a departure from this principle.

minimize the inequities of the liability scheme.<sup>61</sup> A different approach might well generate sufficient pressure to produce a congressional curtailment of joint and several liability.

At the time of the 1986 amendments, Congress was certainly aware of EPA's proportional apportionment practice. We do not think that anything in the *de minimis* settlement provisions reveals a congressional intent that EPA depart from this approach. Neither are there compelling policy arguments for *de minimis* parties to pay less than their rightful share of the cleanup costs.

### 3. Ex Ante v. Ex Post Fairness

An allocation can be fair in either an *ex ante* or *ex post* sense. Assuming that the fair allocation is by reference to the proportion of hazardous waste contributed by each PRP, an *ex post* fair allocation would divide the actual cleanup costs by reference to the actual proportions of contributed wastes.

In contrast, an *ex ante* fair allocation is one that, at the time of the settlement, divides the expected cleanup costs by reference to the estimates of the proportions of contributed wastes. Of course, it might eventually turn out that the actual cleanup costs are different--either higher or lower. Similarly, additional information about the volumetric contributions of the various parties might well reveal that the earlier estimates were incorrect. Neither development, however, would detract from the fairness of the allocation, if fairness is considered in an *ex ante* sense.

One might believe that early estimates will generally be too low. A systematic bias of this sort, if one exists, can be eliminated by adding to the shares of a *de minimis* parties a premium to eliminate this bias. In fact, the EPA guidance documents on *de minimis* settlements--analyzed in Part III--already call for such premiums.<sup>62</sup>

It is clear that the congressional concerns over transaction costs at the time of the 1986 amendments point strongly toward an *ex ante* view of fairness in the case of *de minimis* parties. Otherwise, these parties would continue expending transaction costs until the cleanup costs and the respective waste contributions could be reliably established.

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<sup>61</sup>For industry complaints about joint and several liability, see, e.g., *Superfund Reauthorization: Judicial and Legal Issues*, Oversight Hearings Before the Subcommittee on Administrative Law and Government Relations, Committee on the Judiciary, House of Representatives, 99th Cong., 1st Sess., July 17-18, 1985, at 953-54 (statement of Edmund Frost on behalf of the Chemical Manufacturer's Ass'n.). For the Administration's assurances, see, e.g., *id.* at 14-15 (statement of Lee Thomas, Administrator of EPA), *id.* at 44-46 (statement of F. Henry Habicht II, Assistant Attorney General, Land and Natural Resources Division).

<sup>62</sup>See *infra* Part III.A.1.f.; III.A.2.c.

We recognize that, at some sufficiently early stage in the cleanup process, expected costs and volumetric shares will be so speculative that any allocation will be little more than arbitrary. Assume that EPA enters into *de minimis* settlements at various stages of the cleanup process, with the parties paying their *ex ante* shares. At the completion of the process, it calculates what the respective *ex post* shares would have been. Presumably, the divergence between the *ex ante* and *ex post* shares will be smaller for settlements entered into at later stages of the cleanup process.

The earliest point at which the divergence can be deemed "acceptable"--for example, the mid-point of a RI/FS--is the appropriate time to enter into a *de minimis* settlement. One would expect that, as EPA acquires more information about cleanup costs, for any given stage, the divergence will decrease over time. We do not purport to provide a mechanism for determining what an acceptable divergence might be, but think, nonetheless, that the approach set forth provides a useful metric for evaluating settlements.

#### 4. Relationship Between De Minimis Settlements and the Liability of the Remaining Parties

Fairness in this context has a dual requirement. Not only must the *de minimis* parties pay a sufficient share of the cleanup costs, but the *nonde minimis* party must get the appropriate benefit from the *de minimis* settlement. Under an *ex ante* view of fairness, there, indeed, is a close connection between the payments made by *de minimis* parties and the liability of *nonde minimis* parties.

In the simplest example, some time after a *de minimis* settlement, EPA enters into a settlement with all of the remaining parties, pursuant to which these PRPs perform the cleanup. It is clear that if the cleanup costs exceed the predictions at the time of the *de minimis* settlement, even after taking the premium into account, the *nonde minimis* parties will have borne a disproportionate amount of the cleanup costs. Note, however, that this scenario does not detract from the *ex ante* fairness of the *de minimis* settlement.

If, in contrast, the cleanup ends up costing less than the predictions, then fairness suggests that the major parties, rather than EPA, should get the benefit of the *ex post* surplus produced by the *de minimis* settlement. In other words, the parties that would have borne the responsibility for the any shortfall should also get the benefit of a surplus.

Consider, next, a somewhat harder example. Here, following the *de minimis* settlement, EPA performs the cleanup and then settles its cost recovery claim with the major parties. Once again, if the cleanup costs per

unit of waste dumped are lower than those reflected in the *de minimis* settlement (including the premium), then fairness once again suggests that the major parties should get the benefit of this surplus.

## 5. Structuring De Minimis Settlements

In every system of dispute resolution, there is a tradeoff between the accuracy of a result and the cost necessary to produce that result. Similarly, in law, as in industry, tailor-made products tend to be more expensive than mass-produced ones.

Given the statutory mandate, *de minimis* settlements should be mass-produced and should sacrifice accuracy for economy to a greater extent than other resolutions of legal disputes. There is strong reason to believe--and both Congress and EPA seem to<sup>63</sup>--that the ratio of transaction costs to share of liability is disproportionately high for *de minimis* parties. Indeed, it is because of this disproportionate ratio that the legal regime allows *de minimis* parties to benefit from a somewhat different set of settlement rules.<sup>64</sup>

Both EPA and the *de minimis* parties have as a primary interest an early resolution, reasonably free of large transaction costs, of those parties' responsibility. EPA should therefore make efforts to standardize the terms of settlements. As we show below in Part IV.C, there currently is great variability in the types of reopener provisions included in *de minimis* settlements. If, as a result of the adoption of standard provisions, *de minimis* parties know that they will be unsuccessful in obtaining a narrower set of reopeners, they will not expend the transaction costs to try. The same applies to *nonde minimis* parties, which might be interested in seeking broader reopeners for the *de minimis* settlement.

Of course, each settlement will include site-specific terms, such as volumetric contributions, cleanup costs, and premiums. As to these, there might be disagreements among EPA, the *de minimis* parties, and the *nonde minimis* parties. EPA can reduce the conflict by adopting a standardized process for determining each of these variables. For example, based on experience, EPA could adopt presumptively applicable premiums for each stage of the cleanup process; these would be used in the absence of compelling site-specific information to the contrary.

In any event, the courts have been appropriately deferential to EPA's choice of settlement terms. As the First Circuit stated, EPA's "chosen measure of comparative fault should be upheld unless it is arbitrary,

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<sup>63</sup>See *supra* Part I.C; I.D.

<sup>64</sup>See *supra* Part I.D.

capricious, and devoid of a rational basis."<sup>65</sup> Thus, if EPA adopts standardized procedures for determining the site-specific variables, it will almost certainly be immune from successful legal challenge.

## B. Summarizing the Principles

The preceding section allows us to set forth five principles to guide the design of a *de minimis* settlement policy. Following the discussion of our empirical work, we will return to these principles and use them to generate a set of recommendations concerning EPA's policy.

*Principle I:* EPA should consider one of its objectives to be the minimization of transaction costs that the Superfund program imposes on PRPs in general, and on *de minimis* PRPs in particular.

*Principle II:* Consistent with its general efforts to minimize the potentially unfair effects of joint and several liability, EPA should settle with *de minimis* parties only in return for their share of the liability.

*Principle III:* The fairness of *de minimis* settlements should be determined *ex ante*, rather than *ex post*.

*Principle IV:* The parties that would have borne the responsibility for any shortfall resulting from a *de minimis* settlement should also get the benefit of any surplus.

*Principle V:* There should be little bargaining over the terms of *de minimis* settlements.

## III. EPA Guidance Documents on De Minimis Settlements

EPA has issued four guidance documents directed at *de minimis* settlements: three concerning waste contributors (generators and transporters) and one concerning landowners.<sup>66</sup>

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<sup>65</sup>United States v. Cannons Engineering Corp., 899 F.2d 79, 87 (1st Cir. 1990); see, e.g., United States v. Rohm & Haas Co., 721 F.Supp. 666, 681 (D.N.J. 1989); *In re Acushnet River & New Bedford Harbor*, 712 F.Supp. 1019, 1031 (D.Mass. 1989).

<sup>66</sup>For a discussion of these policies aimed at practitioners, see Information Network for Superfund Settlements, *Issue Analysis on De Minimis Superfund Settlements* (April 1992).

## A. Waste Contributor Settlements

EPA has issued guidance to its regional offices on *de minimis* waste contributor settlements in 1987 (Interim Guidance on Settlements with *De Minimis* Waste Contributors under Section 122(g) of SARA<sup>67</sup>), 1989 (Methodologies for Implementation of CERCLA Section 122(g)(1)(A) *De Minimis* Waste Contributor Settlements<sup>68</sup>), and 1992 (Methodology for Early *De Minimis* Waste Contributor Settlements under CERCLA Section 122(g)(1)(A)<sup>69</sup>). In addition, EPA has issued a model consent decree and administrative order.<sup>70</sup> While each subsequent guidance document purports to supplement the prior one,<sup>71</sup> as we explain below, we discern a change in policy between the second and third. We thus discuss the first and second guidance documents together, as setting forth EPA's original approach, and then discuss the third as opening the way for a potentially new approach.

### 1. The Original Approach

For analytical clarity, and for easy comparison between EPA's original approach and its revised policy, we divided our discussion into seven categories: public interest determination, *de minimis* status, timing of the settlements, strategies for negotiation, apportionment of costs, reopeners and premiums, use of *de minimis* moneys, and settlement documents.

#### a. Determination of the Public Interest

Section 122(g) requires that EPA make the threshold determination that a *de minimis* settlement would be "practicable and in the public interest."<sup>72</sup> The guidance documents set forth several criteria. A *de minimis* settlement would not be desirable if the distribution of wastes contributed at a site were such that every party at a site qualified for *de minimis* treatment. In such a case, a settlement "would not serve one of the primary goals of Section 122(g): elimination of certain minor parties early in the process to focus the remaining case on the major parties."<sup>73</sup> A *de minimis* settlement would also be

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<sup>67</sup>OSWER Directive #9834.7, 52 Fed. Reg. 24,333 (1987).

<sup>68</sup>OSWER Directive #9834.7-1B.

<sup>69</sup>OSWER Directive #9834.7-1C, 57 Fed. Reg. 29,312 (1992).

<sup>70</sup>Interim Model CERCLA Section 122(g)(4) *De Minimis* Waste Contributor Consent Decree and Administrative Order on Consent, OSWER Directive #9834.7-1A, 52 Fed. Reg. 43,393 (1987).

<sup>71</sup>See, e.g., OSWER Directive #9834.7-1B, p. 1, n.1; OSWER Directive #9834.7-1C, p. 1.

<sup>72</sup>42 U.S.C. § 9622(g)(1).

<sup>73</sup>OSWER Directive #9834.1, p. 9.

inappropriate if several major parties at the site are bankrupt or otherwise nonviable.<sup>74</sup> More generally, the "public interest" determination should involve an evaluation of the strength of EPA's case against the viable *nonde minimis* parties.<sup>75</sup> Thus, EPA is not willing to give up the major benefit that accrues to it as a result of joint and several liability: the ability to recover the full cleanup costs from solvent parties, even where some parties--perhaps even the major contributors are insolvent.

The "public interest" inquiry also involves an assessment of the government's interest in settling with *de minimis* parties.<sup>76</sup> The following interests are listed:

1. To resolve the liability of *de minimis* parties for all past and future response activities at a site;
2. To do so relatively early in the process to reduce the transaction costs of both the *de minimis* parties and the government;
3. To obtain money to replenish the Superfund with a relatively modest effort on the part of the government; and
4. To provide an incentive for *nonde minimis* parties to settle simultaneously by reducing, by the amount of the settlement, the government's claim against them.<sup>77</sup>

EPA thus includes among its objectives not only its interest, as a party to litigation, to minimize the transaction costs necessary to recover the cleanup costs, but also a broader interest, as a governmental actor seeking to increase social welfare, to minimize the transaction costs of at least some of its opponents.

## b. De Minimis Status

Section 122(g) refers to three requirements for *de minimis* status: that the volume and toxicity of the hazardous substances contributed by a *de minimis* party be minimal in comparison to the other hazardous substances at the facility, and the settlement must involve only a minor portion of the response costs at the facility. With respect to the requirement that the volume

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<sup>74</sup>OSWER Directive #9834.7, p. 9.

<sup>75</sup>OSWER Directive #9834.7-1B, p. 3.

<sup>76</sup>OSWER Directive #9834.7-1B, p. 3.

<sup>77</sup>OSWER Directive #9834.7-1B, p. 2; see OSWER Directive #9834.7, pp. 4-5. This document indicates that *nonde minimis* parties can also benefit from a settlement:

1. They may not be burdened with third-party suits for contribution against settling *de minimis* parties;
2. Their transaction costs may be reduced; and
3. The *de minimis* settlement might provide start-up funds to finance a cleanup. *Id.* at 3.

contributed by a *de minimis* party be minimal, the guidance documents do no more than restate the statutory standard, and indicate that *de minimis* status must be determined on a site specific basis.<sup>78</sup> By 1989, EPA had used cutoffs ranging from 0.2% to 2% of the total waste at the site.<sup>79</sup>

As to toxicity, the guidance documents recharacterize the statutory requirement as being satisfied if the hazardous substances contributed "are not significantly more toxic and not of significantly greater hazardous effect than other substances at the facility."<sup>80</sup> Recommended as an alternative approach is an inquiry of the remedial costs of the contributed waste. Thus, for example, a PRP would not qualify for *de minimis* status if it disposed a substance requiring a different or more costly remedial technique than the one that would otherwise be chosen for the site.<sup>81</sup>

The requirement that a *de minimis* settlement involve only a minor portion of the response costs, applies by its terms, as EPA itself recognizes,<sup>82</sup> to the settlement with each *de minimis* party, not to the total amount recovered in a settlement involving several *de minimis* parties.<sup>83</sup> It is possible, for example, that in cases in which the major waste contributors cannot be identified or are insolvent, a defendant that met the minimal volume and toxicity requirements of section 122(g) would nonetheless have to bear a large portion of the cleanup costs; such a defendant would not qualify for *de minimis* status.

The guidance documents do not interpret the statutory requirement. They state, however, that, as a matter of policy, EPA considers the collective *de minimis* parties' settlement payment, and that, by 1989, collective payments had ranged up to 33% of the response costs at the site.<sup>84</sup> Apparently, EPA will not enter into a *de minimis* settlement that resolves too large a proportion of the liability at the site. This nonstatutory requirement can be seen as a proxy for ensuring that parties responsible for a sufficiently large proportion of the liability remain in the case until the later stages of the cleanup.<sup>85</sup>

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<sup>78</sup>OSWER Directive #9834.7, pp. 7-8.

<sup>79</sup>OSWER Directive #9834.7-1B, p. 3.

<sup>80</sup>OSWER Directive #9834.7, p. 8; see OSWER Directive #9834.7-1B, p.3.

<sup>81</sup>OSWER Directive #9834.7, p. 9.

<sup>82</sup>See OSWER Directive 9834.7-1B, p. 3.

<sup>83</sup>See 42 U.S.C. §9622(g)(1).

<sup>84</sup>OSWER Directive #9834.7-1B, p. 3.

<sup>85</sup>See also *supra* Section III.A.1.a. (discussing EPA's position that a *de minimis* settlement is inappropriate if all the defendants qualify for this status).



### c. Timing of the Settlements

Two conditions must be met before a *de minimis* settlement is appropriate. First, EPA must have adequate information about the identity of the potentially responsible parties at the site, their waste contributions, and their financial viability.<sup>86</sup> This information is necessary so that the EPA can find that the nonsettling PRPs have sufficient solvency to ensure that the settlement is "practicable and in the public interest".<sup>87</sup> Accordingly, EPA guidance provides that although the Agency may engage in preliminary negotiations prior to completion of such investigatory work, "as a general rule" *de minimis* settlements should not be concluded before completion of a potentially responsible party search, a title search, and financial assessments, or before the Agency is confident that adequate information about the extent of each settling party's contribution to the site has been discovered.<sup>88</sup>

The procedures governing establishment of a list of the type and quantity of waste contributed by each PRP, also known as a waste-in list, are set forth in a separate EPA guidance document--*Guidance on Preparing and Releasing Waste-In Lists and Volumetric Ranking to PRPs under CERCLA*.<sup>89</sup> Information for these lists is gleaned from a variety of sources, including site records, interviews with PRPs, and title searches.<sup>90</sup> The Regions are directed to begin the PRP investigatory work concurrent with the expanded site investigation or, at the latest, the NPL scoring quality assurance process.<sup>91</sup>

Second, EPA must have adequate information about the cleanup costs. The guidance documents indicate that *de minimis* settlements "should not be pursued until the Agency is able to estimate, with a reasonable degree of confidence, the total response costs associated with cleaning up the subject site, including oversight and operation and maintenance costs."<sup>92</sup> Thus, according to EPA, such settlements are generally not appropriate until both the RI/FS and ROD have been completed at the site, or are close to being

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<sup>86</sup> OSWER Directive #9834.7, p. 10.

<sup>87</sup> OSWER Directive #9834.7, p. 10.

<sup>88</sup> OSWER Directive #9834.7, p. 11; see OSWER Directive #9834.7-1B, p. 4. In the case of *de minimis* settlements entered into before the completion of the PRP investigatory work, EPA should use more conservative criteria in distinguishing between *de minimis* and *nonde minimis* parties. OSWER Directive #9834.7, p. 12.

<sup>89</sup> OSWER Directive #9835.16 (Feb. 22, 1991); see also *Potentially Responsible Party Search*, OSWER Directive #9834.3-1A (Aug. 27, 1987); *PRP Search Supplemental Guidance for Sites in the Superfund Program*, OSWER Directive #9834.3-2A (June 29, 1989).

<sup>90</sup> OSWER Directive #9835.16, p. 4.

<sup>91</sup> OSWER Directive #9834.7, p. 11.

<sup>92</sup> OSWER Directive #9834.7, pp. 12-13.

completed.<sup>93</sup> They may be concluded at an earlier stage, however, if the Agency is relatively certain of its ability to estimate future response costs, and the settlement takes into account the increased level of uncertainty through an adequate premium.<sup>94</sup>

#### d. Settlement Negotiations

The guidance documents provide several instructions on how the Regions should conduct settlement negotiations. First, EPA will focus on comprehensive *de minimis* settlements, in which all *de minimis* parties at a site are included in a single agreement. In cases with large number of PRPs, however, the Agency may consider negotiating separately with steering committees representing substantial numbers of *de minimis* parties.<sup>95</sup>

Second, the *de minimis* parties are encouraged to organize and present offers to EPA. The documents also refer to the possibility to having the *nonde minimis* parties propose *de minimis* settlements;<sup>96</sup> the major parties often perform the bulk of the cleanup activities, and might, under appropriate circumstances, be allowed to use the proceeds from *de minimis* settlements to finance such cleanups.<sup>97</sup> Significantly, however, there is no mention of the possibility that EPA might prepare a settlement offer and present it to the *de minimis* parties.

Third, the settlements should take the form of standardized agreements, and the Regions should avoid lengthy settlement negotiations over the terms of the agreements. To avoid the need for such negotiations, EPA prepared model consent decrees and administrative orders, which should be used as the basis for drafting site-specific documents.<sup>98</sup>

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<sup>93</sup>OSWER Directive #9834.7, p. 13; OSWER Directive #9834.7-1B, pp. 7-8. One document states that pre RI/FS and ROD *de minimis* settlements are inappropriate if they contain an expansive covenant not to sue--one without reservations of rights for cost overruns and for future response action. OSWER Directive #9834.7, p. 12. The other document states, without referring to the nature of the reopeners, that the ROD stage is the appropriate time for a *de minimis* settlement. OSWER Directive #9834.7-1B, p. 8. In fact, an early settlement that included a reopener for future action would be of limited utility, since the major portion of the liability would remain unresolved.

<sup>94</sup>OSWER Directive #9834.7, p. 13; OSWER Directive #9834.7-1B, pp. 7-8. Another example for which an early settlement might be appropriate is a case in which there are hundreds of parties that have contributed "extremely small volumes." OSWER Directive #9834.7-1B, p. 8.

<sup>95</sup>OSWER Directive #9834.7 pp. 5-6; OSWER Directive #9834.7-1B, p. 7.

<sup>96</sup>OSWER Directive #9834.7, p. 5; OSWER Directive #9834.7-1B, p. 7.

<sup>97</sup>See *infra* Section III.A.1.g. (discussing uses of *de minimis* moneys).

<sup>98</sup>OSWER Directive #9834.7, p. 5; OSWER Directive #9834.7-1B, p. 16.

Fourth, where EPA has sufficient information, it might inform PRPs of their *de minimis* status when it invokes the special notice procedures of section 122(e), under which the Agency can release general information about PRPs at a site as a means of facilitating settlements.<sup>99</sup> In addition, EPA might, at a general informational meeting, provide PRPs the materials--including model agreements--necessary to develop a *de minimis* settlement proposal.<sup>100</sup>

Fifth, EPA might consult with *nonde minimis* parties about the terms of *de minimis* settlements. The reason adduced is that the volume and toxicity criteria established for participating in a *de minimis* settlement might affect the willingness of the major parties to settle. Moreover, for settlements occurring at the RD/RA stage, the *de minimis* settlement might be incorporated into a global settlement including the major parties.<sup>101</sup>

Sixth, as an incentive for *de minimis* parties to settle, EPA might use a tiered approach in which *de minimis* nonsettlers at a particular site might be offered, at a later time, a less advantageous settlement (generally, one with a premium to penalize them for not having settled earlier).<sup>102</sup>

Seventh, the Regions are not encouraged to devote extensive effort to assessing proposals for *de minimis* settlements unless there is a reasonable prospect of a successful settlement.<sup>103</sup>

#### e. Apportionment of Costs

The central factor that governs the allocation of costs is each party's percentage of the total volume of hazardous substances at the site. This percentage is revised by reallocating proportionately among the viable parties, the shares of parties that are insolvent or cannot be found. Thus, each party is responsible for a percentage of the liability that is larger than its volumetric share of the hazardous substances.<sup>104</sup>

The cleanup costs at a site have two components: past costs already expended by EPA, and expected future costs. The expected future costs are multiplied by a premium that covers the risk of underestimating response costs.<sup>105</sup> The past and expected future costs, augmented by the premium, are

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<sup>99</sup>See 42 U.S.C. § 9622(e)(1).

<sup>100</sup>OSWER Directive #9834.7, p. 6; OSWER Directive #9834.7-1B, p. 6.

<sup>101</sup>OSWER Directive #9834.7, pp. 5-6; OSWER Directive #9834.7-1B, pp. 7, 16.

<sup>102</sup>OSWER Directive #9834.7-1B, p. 8. This premium is analytically distinct from the premium paid in exchange for releases from the reopeners for cost overruns and future remedial action.

<sup>103</sup>OSWER Directive #9834.7, p. 7.

<sup>104</sup>OSWER Directive #9834.7, pp. 18-20; OSWER Directive #9834.7-1B, pp. 4, 12-13.

<sup>105</sup>The determination of this premium is discussed *infra* Section III.A.1.f.

then allocated among the settling parties by reference to their revised percentage of the liability.<sup>106</sup> Interestingly, the amount of the settlement does not appear to reflect the risk that EPA will not prevail in the litigation.<sup>107</sup>

#### f. Reopeners and Premiums

The guidance documents contemplate the use of up to four reopeners when EPA grants a *de minimis* party a covenant not to sue. Under the provisions of the statute,<sup>108</sup> natural resource damage claims should not be released unless the federal natural resource trustee has agreed in writing to such a release.<sup>109</sup>

Settlements should also generally include an "additional information" reopener, "which would allow the Government to seek further relief from any settling party if information not known to the Government at the time of the settlement is discovered which indicates that the volume or toxicity criteria for the site's *de minimis* parties are no longer satisfied with respect to that party."<sup>110</sup> Surprisingly, this reopener appears to be linked to the maximum volumetric contribution consistent with *de minimis* status, rather than to the volumetric contribution reflected in the settling party's payment. Suppose that at a particular site, EPA defines parties that contributed less than 1% of the waste as *de minimis*. A party that, at the time of the settlement appeared to have contributed only 0.4% but that was later shown to have in fact contributed 0.8% would appear not to be subject to the additional information reopener, even though it should have paid twice as much as it did.

The remaining two types of reopeners protect EPA against (1) the risk of cost overruns and (2) the risk that the cleanup will require response action that goes beyond that contemplated in the ROD. The Agency, however, may waive these reopeners in exchange for the payment of a premium, particularly if it has sufficient information to evaluate the likelihood of cost overruns or future response action. The size of the premium will be related to the level of

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<sup>106</sup>OSWER Directive #9834.7, pp. 19-20; OSWER Directive #9834.7-1B, pp. 12-13.

<sup>107</sup>The first guidance document states that the volumetric share may be adjusted by several factors, including litigative risk. See OSWER Directive #9834.7, p. 19. The second document, however, which sets forth an explicit formula for allocating response costs, makes no mention of factors other than volume. See OSWER Directive #9834.7-1B, pp. 12-13.

<sup>108</sup>42 U.S.C. §9622(j)(2).

<sup>109</sup>OSWER Directive #9834.7, p. 15; OSWER Directive #9834.7-1B, p. 14. The federal natural resource trustee is the official designated under 42 U.S.C. §9607(f)(2) to protect the public interest in the natural resources. See also 40 C.F.R. §300.615.

<sup>110</sup>OSWER Directive #9834.7, p. 15; OSWER Directive #9834.7-1B, pp. 13-14. Such a reservation is not necessary if the Agency believes that the probability of discovering new waste information about the site is negligible. OSWER Directive #9834.7, p. 15.

uncertainty.<sup>111</sup> *De minimis* parties may also be given the choice of either paying a premium in exchange for EPA's waiving the reopeners for cost overrun and future response action, or not paying a premium and being subject to these reopeners. Alternatively, the settlement might fix the percentage of a party's contribution; the party might then pay for the past cost and be billed for the future costs when these are incurred.<sup>112</sup>

#### g. Use of De Minimis Moneys

In general, a *de minimis* settlement takes the form of a "cash-out," in which the settling parties agree to pay a given sum in exchange for a release of their liability, rather than an agreement to perform remedial action at the site. The guidance documents set forth various rules for the uses of the proceeds of *de minimis* settlements. The past cost component of the settlement should be deposited in the Trust Fund (Superfund). The future cost component, including the premium, should also be placed in the Trust Fund except in the following circumstances:

1. If EPA is implementing the cleanup, the money can be placed in a site-specific special account managed by EPA;

2. In the case of state-lead cleanups, the money can be deposited in a state-managed escrow account, provided that there are safeguards to ensure that it will be used for the cleanup of the site;

3. If a global settlement is expected to follow shortly after the *de minimis* settlement, the funds can be deposited in a court managed escrow account for future distribution to the major settlers; and

4. If the *de minimis* settlement is part of a global settlement, the funds can be deposited in a PRP-managed trust fund or escrow account.<sup>113</sup>

It appears that under one important scenario, the future cost component and premium would have to be deposited into the Trust Fund and could not be made available later for financing the cleanup: if EPA and the state are not planning to conduct the cleanup, but negotiations with the major parties are not sufficiently advanced at the time of the *de minimis* settlement to suggest that a global settlement would follow shortly.

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<sup>111</sup>OSWER Directive #9834.7, pp. 16-18; OSWER Directive #9834.7-1B, pp. 12, 14. EPA had also provided guidance on appropriate premiums in *Guidance on Premium Payments in CERCLA Settlements*, OSWER Directive #9835.6 (Nov. 17, 1988). This directive, however, addresses primarily the question of covenants not to sue in settlements with *nonde minimis* parties under section 122(f) rather than in settlements with *de minimis* parties under section 122(g).

<sup>112</sup>OSWER Directive #9834.7-1B, pp. 14-15.

<sup>113</sup>OSWER Directive #9834.7-1B, pp. 16-17.

## h. Settlement Instruments

The statute provides that *de minimis* settlements can be embodied either in consent decrees or administrative orders, but that the latter must be approved by the Attorney General if the total response costs at the site exceed \$500,000.<sup>114</sup>

Under the statute, settlements with *nonde minimis* PRPs that provide for remedial action must be embodied in consent decrees.<sup>115</sup> Similarly, if EPA has already filed a lawsuit concerning a site, a consent decree might be appropriate. Apparently, in other cases, administrative orders are the appropriate instrument.<sup>116</sup>

## 2. The Revised Approach

On June 2, 1992, EPA issued a new guidance document on waste contributor settlements (Methodology for Early *De Minimis* Waste Contributor Settlements under CERCLA Section 122(g)(1)(A)<sup>117</sup>). The main purpose of this guidance document is to encourage Regions to enter into *de minimis* settlements prior to the completion of a ROD<sup>118</sup>--a practice that the prior documents had discouraged, at least implicitly.<sup>119</sup> The new approach focuses primarily on four of the areas discussed above: timing of the settlement, strategies for negotiation, reopeners and premiums, and use of *de minimis* moneys.<sup>120</sup>

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<sup>114</sup>42 U.S.C. § 9622(g)(4).

<sup>115</sup>42 U.S.C. § 9622(d)(1)(A).

<sup>116</sup>OSWER Directive #9834.7, p. 21-23.

<sup>117</sup>OSWER Directive #9834.7-1C (June 2, 1992), 57 Fed. Reg. 29312, (1992).

<sup>118</sup>OSWER Directive #9834.7-1C, p. 1.

<sup>119</sup>See *supra* Section III.A.1.c.

<sup>120</sup>With respect to the determination of public interest, the document states that collecting the proceeds of *de minimis* settlements early in the process would benefit all waste contributors (*de minimis* and *nonde minimis*). OSWER Directive #9834.7-1C, p. 2. It summarily restates the approach of the prior guidance documents on *de minimis* status, *id.* at 9-10, and does not contain a discussion on the apportionment of costs among PRPs.

The new guidance document also suggests, in general, that an administrative order on consent is preferable to a consent decree for early *de minimis* settlements because, while providing similar legal effect, it can usually be issued more quickly and with the expenditure of fewer legal resources. It restates, however, the prior approach of favoring consent decrees where there is pending litigation involving the *de minimis* parties, or where the major parties agree to perform the RD/RA at the time of the *de minimis* settlement. *Id.* at 14.

### a. Timing of the Settlements

The two prerequisites for *de minimis* settlement are adequate information about the identity, waste contribution, and financial viability of the PRPs, and adequate information about cleanup costs. With respect to the first requirement, the new guidance document does not change the original approach of first preparing a waste-in list and volumetric ranking of PRPs. It merely exhorts the Regions to give high priority to the early completion of this step: "[p]rocessing the waste-in information as soon as it is available should facilitate consideration of a *de minimis* settlement much earlier in the response process."<sup>121</sup>

Considerably more attention is focused on the second requirement. As already indicated, whereas under the original approach, *de minimis* settlements were discouraged until the completion of the ROD, the purpose of the new guidance document is to facilitate earlier settlements. Rather than waiting until there is reasonably reliable site-specific information about cleanup costs, the guidance document urges the Regions to estimate the expected costs by reference to other, similar sites. This process involves two steps: (1) acquiring sufficient information about contamination at the site to be able to identify the possible future response activities; and (2) learning about response costs at sites with similar characteristics.<sup>122</sup>

Pre-ROD information about site contamination can be acquired from several sources: early EPA study of the site in connection with the original site investigation and NPL scoring, or through the RI/FS, if one has been completed or is ongoing; prior removal actions (often undertaken to stabilize the site in order to prevent further contamination) or remedial actions at other operable units; and prior enforcement actions by state or local enforcement authorities.<sup>123</sup>

The guidance document directs the Regions to identify similar sites at which remedial action is ongoing. Relevant similarities are site type (*e.g.*, landfill), contaminated media (*e.g.*, groundwater), site location, and nature of contamination.<sup>124</sup>

Then, the Regions are asked to review post-1986 RODs to determine the selection of remedies at other sites with similar characteristics. If there is more current information concerning these RODs, because the remedy has been implemented or is in the process of being implemented, the Regions should use that information instead. Then, the Regions should determine,

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<sup>121</sup>OSWER Directive #9834.7-1C, pp. 3-4.

<sup>122</sup>OSWER Directive #9834.7-1C, p. 5.

<sup>123</sup>OSWER Directive #9834.7-1C, p. 6.

<sup>124</sup>OSWER Directive #9834.7-1C, pp. 7, 11.

presumably from the RODs and any available post-ROD information, the cleanup cost of comparable sites.<sup>125</sup>

As an alternative to determining the response costs by surveying similar sites, the guidance document authorizes the Regions to establish unit costs for remedial technologies. This approach would require the development of a list of remedial technologies from RODs chosen or implemented for sites with similar characteristics. Unit costs would then be developed by matching the extent of contamination at a site for which a ROD has been prepared, with the estimated remedial cost.<sup>126</sup>

While the guidance document places in the Regions the bulk of the responsibility for determining the cleanup costs at comparable sites, it indicates that EPA Headquarters is taking some steps to ease this task. It states, without further elaboration, that the Office of Waste Program Enforcement "is collecting data to assist Regions in estimating future response costs for settlement by using information from sites with similar characteristics."<sup>127</sup> In addition, the Office of Emergency and Remedial Response "is exploring whether sufficient data exists to develop standardized or presumptive remedies for 'generic' site types."<sup>128</sup> The desirability of this allocation of responsibility between EPA Headquarters and the Regions is discussed in Part IV.

#### b. Strategies for Negotiation

The guidance document also takes a somewhat different approach with respect to EPA's strategies for negotiating *de minimis* settlements. Whereas the prior documents did not contemplate the possibility that EPA might prepare a settlement offer and present it to the *de minimis* parties,<sup>129</sup> the new document indicates that the Regions may take two important affirmative steps: "assist in the formation of an early *de minimis* group (e.g., send out letters, hold meetings, publish notice in a local newspaper)" and "[s]end a draft settlement document to parties identified as *de minimis*, take comments over a

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<sup>125</sup>OSWER Directive #9834.7-1C, pp. 7, 11. At the time that a Region has sufficient information both on the contamination at the site and the characteristics at similar sites, it should inform EPA Headquarters that the site is a candidate for an early *de minimis* settlement. The guidance document states that this notification "helps to assure that Headquarters resources are available to facilitate the settlement." *Id.* at 8.

<sup>126</sup>OSWER Directive #9834.7-1C, pp. 7-12.

<sup>127</sup>OSWER Directive #9834.7-1C, p. 7; see *id.* p. 11, n. 17, p. 12, n. 18.

<sup>128</sup>OSWER Directive #9834.7-1C, p. 7.

<sup>129</sup>See *supra* Section III.A.1.d.



specified period of time, and send the final settlement document (incorporating appropriate comments) to all *de minimis* PRPs for signature."<sup>130</sup>

Thus, the new approach does not require PRPs to bear the transaction costs of organizing a *de minimis* committee, which can be substantial for groups with several hundred parties. Moreover, individual firms can decide whether to settle without being subject to the wishes of the committee, which is likely to be dominated by the larger *de minimis* parties and by parties that are PRPs at many sites. The former are more likely to prefer bearing additional transactions to attempt a better settlement, and the latter may be more interested in the precedential value of a settlement.

### c. Reopeners and Premiums

The guidance document focuses on the reopener that protects EPA against cost overruns and the need for future response action.<sup>131</sup> It expresses a definite preference for settlements that include a premium in exchange for waiving this reopener: "A primary goal of the Agency in an early *de minimis* settlement is to provide as much finality as possible to the *de minimis* parties. This reduces transaction costs to all parties, and reduces the possibility that the Agency will have to pursue the *de minimis* parties in the future for site-related costs."<sup>132</sup> In contrast, the original guidance appeared to be neutral on whether Regions should waive the cost overrun reopener in exchange for a premium.<sup>133</sup>

Of course, earlier settlements generally give rise to greater uncertainty. The premium charged in addition to a party's *pro rata* share of the response costs must compensate EPA for the risks associated with settling at a time when the future response action has not yet been chosen, possible cost overruns for a remedy that has not yet been selected, and potential inability to recover response costs from other sources.<sup>134</sup>

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<sup>130</sup>OSWER Directive #9834.7-1C, p. 13. Consistent with the prior approach, the Regions should discourage *de minimis* parties from commenting or negotiating over the boilerplate provisions, and should advise them that, if they reject a settlement offer, subsequent offers will be on less favorable terms. *Id.*

<sup>131</sup>The prior approach referred to two separate reopeners. *See supra* Section III.A.1.f. The new guidance document subsumes them both under the "cost overrun" rubric. OSWER Directive #9834.7-1C, p. 15, n. 25.

<sup>132</sup>OSWER Directive #9834.7-1C, p. 16. Regions may also offer each PRP the choice whether to pay a premium in return for a waiver of the cost overrun reopener. *Id.*

<sup>133</sup>*See supra* Section III.A.1.f

<sup>134</sup>OSWER Directive #9834.7-1C, p. 17.

#### d. Use of De Minimis Moneys

The guidance document states that the proceeds of *de minimis* settlements should generally be deposited in the Trust Fund. Two relevant scenarios are determined by whether the proceeds of the settlement are greater than EPA's expenditure of past costs. Even where this is the case, the deposit of the full amount into the Trust Fund might be appropriate. The Regions, however, may place the amount that exceeds EPA's past costs into a site-specific special account, or a state-managed escrow account or PRP-managed escrow account or trust fund.<sup>135</sup>

The guidance document contemplates, however, the possibility that if it would facilitate a settlement and the *nonde minimis* PRPs have been cooperative during the settlement process, that the Region may apportion funds received between past costs and future costs without fully reimbursing the government for its past costs. The amount allocated to past costs should then be placed in the Trust Fund, but the remainder can be deposited into an account established for the site. The document states that allocating a portion of the settlement to future costs even where the government has not been fully compensated for its past cost can reduce the opposition of major parties to a *de minimis* settlement, since it makes available more money for funding the cleanup.<sup>136</sup>

Under the prior approach, it appeared that EPA could not make available the future cost component and premium to finance a private party cleanup unless negotiations with the major parties were sufficiently advanced.<sup>137</sup> The new guidance document is ambiguous as to whether this is still the case.<sup>138</sup>

### B. Landowner Settlements

In 1989, EPA issued its only guidance document on *de minimis* landowner settlements (*Guidance on Landowner Liability under Section 107(a)(1) of CERCLA, and Settlements with Prospective Purchasers of Contaminated Property*<sup>139</sup>). The document primarily expands upon the three relevant statutory requirements, which provide that a landowner qualifies for *de minimis* status if it had no connection to the hazardous substances at the facility (other than through their ownership of the land), did not contribute to the

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<sup>135</sup>OSWER Directive #9834.7-1C, p. 18.

<sup>136</sup>OSWER Directive #9834.7-1C.

<sup>137</sup>See *supra* Section III.A.1.g.

<sup>138</sup>See OSWER Directive #9834.7-1C, p. 18.

<sup>139</sup>OSWER Directive #9835.9 June 6, 1989, 54 Fed. Reg. 34,235 (1989).

release or threatened release through an act or omission, and did not purchase the property with actual or constructive knowledge of the presence of hazardous substances.<sup>140</sup>

The guidance document states explicitly that the factors that EPA considers in assessing *de minimis* landowner status are "substantially the same as the elements which must be proved at trial in order for a landowner to establish a third party defense."<sup>141</sup> The document places the burden on the landowner to present to EPA evidence to support its claim.<sup>142</sup> The type of settlement that EPA will then offer will be a function of the strength of this evidence.

Two possibilities are contemplated. "In some instances, a landowner may be able to make a thoroughly convincing demonstration that each of the elements of the third party defense have been satisfied."<sup>143</sup> In such cases, the settlement would require only that the landowner grant EPA access to the property and that it commit itself to taking due care with respect to the hazardous substances. Where the evidence is somewhat less strong, but the landowner "is nevertheless able to persuade the Agency that it is likely that [it] would prevail in establishing the third party defense at trial," a cash payment would also be required.<sup>144</sup> There is no discussion, however, of how such a payment would be computed and what relationship it would bear to the cleanup costs.

EPA can grant parties to *de minimis* landowner settlements covenants not to sue,<sup>145</sup> except in the case of natural resource damages.<sup>146</sup> Unlike the case of *de minimis* contributors, where the discussion of reopeners focuses on the problem of cost overruns, here the major concern is on the accuracy of the information establishing a party's *de minimis* status. EPA will reserve the right to seek further relief if new information shows that the landowner does not meet the requirements for a *de minimis* settlement. Because taking due care with respect to the hazardous substances is an element of the third-party defense,<sup>147</sup> and therefore a prerequisite for *de minimis* status, a landowner that

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<sup>140</sup>See *supra* Section I.D.

<sup>141</sup>OSWER Directive #9835.9, 54 Fed. Reg. at 34,237.

<sup>142</sup>This discussion focuses primarily on the "innocent purchaser" prong of 42 U.S.C. § 9601(35)(A)(i), rather than on the prongs dealing with acquisition by government entities or by inheritance or bequest, 42 U.S.C. § 9601(35)(A)(ii)-(iii).

<sup>143</sup>OSWER Directive #9835.9, 54 Fed. Reg. at 34,239-40.

<sup>144</sup>OSWER Directive #9835.9, 54 Fed. Reg. at 34,240.

<sup>145</sup>Recall that the statute requires EPA to determine that the grant of such covenants is in the public interest. See *supra* Section I.D. The guidance document does not explain the nature of this inquiry.

<sup>146</sup>See *supra* Section I.D.

<sup>147</sup>See *supra* Section I.D.

qualified for a *de minimis* settlement might lose this eligibility if, following the settlement, it failed to take due care; in this situation, EPA could seek further relief. There is no explicit mention in the guidance document of a reopener for cost overruns.<sup>148</sup>

While given the same rubric in both the statute and guidance documents, *de minimis* landowner settlements differ from *de minimis* waste contributor settlements in several analytically important ways. First, for a given site, there may be many, sometimes even hundreds of *de minimis* waste contributors, but only one, or at most a very small number of *de minimis* landowners.<sup>149</sup> Thus, *de minimis* landowner settlements do not typically raise substantial revenues or simplify the litigation in substantial ways.

Second, *de minimis* waste contributors typically have no viable defenses to liability. Instead, they qualify for this status on the basis of the small share of hazardous substances contributed, and their payments are directly linked to their proportion of the total amount of hazardous substances at a site. In contrast, *de minimis* landowners often would qualify for a third-party defense and choose to settle merely to avoid expending the transaction costs necessary to establish their lack of liability. Moreover, the amount of their payment is dependent upon the strength of the evidence supporting their defense.<sup>150</sup>

The decision of a prospective purchaser of land will be greatly influenced by whether it can escape liability altogether and by the extent to which it can compromise such liability through settlement. In fact, the guidance document contemplates the possibility that EPA will grant a prospective purchaser a covenant not to sue in return for a substantial sum of money or the commitment to perform substantial response action.<sup>151</sup>

Fourth, as indicated above, in the case of landowner settlements, the landowner itself is the main source of evidence concerning *de minimis* status. In contrast, for waste contributor settlements, EPA is often the primary source of information.<sup>152</sup> In addition, estimating the cost of the cleanup does not appear to be a prerequisite for landowner settlements, particularly since such settlements do not necessarily involve payments to EPA. Thus, such settlements do not raise the same types of questions about the appropriate timing for EPA's attempts to obtain *de minimis* settlements.

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<sup>148</sup>OSWER Directive #9835.9, 54 Fed. Reg. at 34,240.

<sup>149</sup>OSWER Directive #9835.9, 54 Fed. Reg. at 34,235.

<sup>150</sup>OSWER Directive #9835.9, 54 Fed. Reg. at 34,239-40.

<sup>151</sup>OSWER Directive #9835.9, 54 Fed. Reg. at 34,241. Technically, such a purchaser does not qualify for *de minimis* status, since it is acquiring the property with knowledge of the problem caused by the presence of hazardous substances.

<sup>152</sup>See OSWER Directive #9835.9, 54 Fed. Reg. at 34,239.

## IV. Empirical Study of De Minimis Settlements

This section reports the results of an this empirical study of *de minimis* settlements entered on or before June 30, 1992. We study three questions: (1) how many *de minimis* settlements as a percentage of the universe of sites for which such settlements would be appropriate were entered? (2) when, during the long process of clean-up, were the settlements entered? and (3) what were the terms of the settlements?<sup>153</sup> We also seek to identify variations among settlements across sites and variations in regional practice as well as to identify possible explanations for these variations. In particular, we study regional differences in the use, timing, and terms of settlements, to determine whether they account for these variations across sites. We also identify other possible sources of heterogeneity and study the effects of these sources.

This empirical study is based primarily on the examination of the *de minimis* settlement documents. For our discussion of the relative use of *de minimis* settlements, we also rely, in part, on an EPA database that shows, for 957 sites on the NPL, the number of parties that received notice of their potential liability.<sup>154</sup>

Three important conclusions emerge from this study. First, *de minimis* settlements have been greatly underutilized. Such settlements have been entered in roughly one-fifth of the sites likely to benefit from such settlements.

Second, *de minimis* settlements have been entered very late in the cleanup process (on average about two years after the entry of the ROD). At a majority of sites, they have been entered as part of global settlement or settlements with major parties, or have been preceded by global settlements, thereby vitiating the congressional purpose of settling the liability of small contributors before EPA is in a position of doing so with large ones. In addition, the majority of *de minimis* settlement have been entered as consent decrees rather than administrative orders on consent, adding further delay to the settlement process and making it more cumbersome.

Third, there is great variation in the terms used for *de minimis* settlements, even ones for which the model administrative order and model consent decree

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<sup>153</sup>This report will lead to a more comprehensive study of *de minimis* settlements, which we are currently preparing. Because we are missing a comparatively large percentage of landowner settlements, this report focuses on the terms of waste contributor settlements.

<sup>154</sup>This database excludes federal facilities and sites at which a state is taking the lead in the cleanup. Since federal facilities raise a special range of questions, and no *de minimis* settlement has been entered at such sites, this exclusion is desirable. Though including the number of sites at which the state takes the lead in the cleanup might be preferable, the number of sites at which this occurs is sufficiently small that their omission is unlikely to significantly affect the conclusions.

adopted by EPA contemplates uniformity. These differences do not appear to be justified by site-specific factors.

### A. The Data

To compile the list of settlements entered in final form through June 30, 1992, we relied primarily on four lists: one sent to us by EPA in response to our request, one prepared by EPA in response to a request by Congressman Borski, one prepared by the Information Network for Superfund Settlements, and one that we generated using a database sent to us by EPA, which contains summary information about settlements. In addition, we searched the *Federal Register* for notices of settlements, and had discussions with attorneys at the EPA Regions. Unfortunately, there were serious inconsistencies in these various sources of information. For any settlement that appeared on at least one of these lists we attempted, primarily through conversations with EPA officials, to determine whether they in fact had been entered in final form (approved by the court in the case of consent decrees or by the Attorney General in the case of administrative orders at sites with cleanup costs over \$500,000). We believe that, through June 30, 1992, there have been a total of 79 *de minimis* settlements (70 by waste contributors and 9 by landowners). Because several sites had multiple *de minimis* settlements, the 79 *de minimis* settlements involved only 52 sites; thus, 27 settlements occurred at sites that already had a *de minimis* settlement.

Even though we set out to perform a comprehensive analysis of the settlements, we have not yet been able to obtain copies of all the documents; unfortunately, there is no central library that contains *de minimis* settlements, and they are not collected by EPA Headquarters. So far, we have examined a total of 65 settlements (59 by waste contributors and 6 by landowners) entered at 45 sites. Our analysis of the terms of the settlement or other factors that rely on these documents is thus restricted to this smaller sample.

### B. Number of Settlements

To draw some conclusions about the relative use of *de minimis* settlements, we rely on the EPA database containing information about the number of parties at each site. We assume that any site with twenty or more parties is likely to be a good candidate for such settlements: a total of 167 sites out of 957 sites meet this condition. There have been *de minimis* settlements in only 52. Thus, as a first approximation, one can say that more than two-thirds of the sites for which *de minimis* settlements are likely to be appropriate have not

yet benefited from this tool. In addition, assuming that sites that are added to the NPL in the future have similar patterns for the number of PRPs involved, between 15 and 20% ought to be likely candidates for *de minimis* settlements.

We believe, however, that these figures actually overstate the use of *de minimis* settlements. Of the 45 sites in our sample, the database has information about the numbers of parties in only 32. Of these, in 11 of these (34%), the database shows that fewer than 20 parties got notice of their liability. Adjusting for these factors yields the following estimates:

- (1) of the sites currently on the NPL, 253 are suitable candidates for *de minimis* settlements; of these such settlements have been entered in only 52 (21%);
- (2) of the sites that will be added to the NPL in the future, over 25% will be suitable candidates for *de minimis* settlements.<sup>155</sup>

We now study regional variations in the numbers of settlements. Table I displays the distribution of settlements by region. For each region, we show the number of waste contributor settlements, landowner settlements, total settlements (the sum of the prior two columns), and of sites at which there were *de minimis* settlements. In each box, the first figure shows the actual number of settlements, whereas the second, which is in parentheses, is the number that we were able to analyze (82.3% of the settlements and at least one settlement at 86.5% of the sites).<sup>156</sup>

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<sup>155</sup>In calculating this number we assume that ratio of sites with more than twenty parties suitable for *de minimis* settlements to the sites with less than twenty parties suitable for *de minimis* settlements matches the ratio of roughly 2:1 that we found in our sample of 52 sites. Thus, the 253 candidate sites equals the 167 sites with more than 20 parties divided by .66.

<sup>156</sup>We are continuing to make efforts to obtain the remaining settlements, and hope to analyze them before the publication of the article that will be based on this report.

Table I: Regional Distribution of Settlements

Region	Waste Contributor Settlements	Landowner Settlements	Total Settlements	Total Sites
I	19 (17)	0 (0)	19 (17)	8 (7)
II	3 (2)	3 (2)	6 (4)	5 (4)
III	5 (4)	0 (0)	5 (4)	1 (1)
IV	8 (7)	1 (1)	9 (8)	8 (7)
V	20 (15)	1 (0)	21 (15)	13 (11)
VI	8 (7)	0 (0)	8 (7)	8 (7)
VII	1 (1)	1 (0)	2 (1)	2 (1)
VIII	0 (0)	2 (2)	2 (2)	2 (2)
IX	1 (1)	0 (0)	1 (1)	1 (1)
X	5 (5)	1 (1)	6 (6)	4 (4)
Total	70 (59)	9 (6)	79 (65)	52 (45)

Clearly, there is great regional variation in both the total number of *de minimis* settlements entered and in the number of sites with at least one *de minimis* settlement. As to the former, Regions V and I, with 21 and 19 settlements, respectively, account for more than half of the total number of settlements. No other region has 10 or more settlements, and three regions (VII, VIII, and IX) have two or fewer settlements.

With respect to the number of sites at which at least one *de minimis* settlement was entered, Region V leads by a large margin with thirteen (25% of the total). Three other regions (I, IV, and VI) each have eight sites, and four regions (III, VII, VIII, and IX) have two or fewer sites.

It is possible that the difference in the numbers of *de minimis* settlements across regions might be explained by differences in the numbers of NPL sites, or of NPL sites that are suitable for such settlements. As a proxy, we again use the number of sites with twenty or more parties in the EPA database.

Table II presents, for each region, the percentage of sites on the NPL, the percentage of NPL sites with twenty or more parties,<sup>157</sup> the percentage of *de minimis* settlements, and the percentage of sites at which at least one *de minimis* settlement was entered.

<sup>157</sup>We also performed the calculation for sites with ten or more parties, and the differences in the percentages were not major.



**Table II: Regional Distribution of NPL Sites, De Minimis Settlements, and Sites with De Minimis Settlements**

Region	% of NPL Sites	% of NPL Sites with 20 or More Parties	% of <i>De Minimis</i> Settlements	% of Sites with <i>De Minimis</i> Settlements
I	7.8	16.2	24.1	15.4
II	19.7	7.8	7.6	9.6
III	14.6	16.8	6.3	1.9
IV	11.3	7.8	11.4	13.5
V	24.7	21.0	26.6	25.0
VI	2.5	9.0	10.1	15.4
VII	4.7	5.4	2.5	3.8
VIII	3.2	3.0	2.5	3.8
IX	7.0	7.8	1.3	1.9
X	4.4	5.4	7.6	9.6

Considering the percentage of sites on the NPL and the percentage of sites on the NPL with twenty or more parties changes some of the preceding conclusions. To approach the question somewhat systematically, we use the latter percentage (rather than the percentage of all NPL sites) as the best proxy for the number of sites at which a *de minimis* settlement might be appropriate. We also use the number of sites with at least one *de minimis* settlement as the best proxy for the use of this settlement tool. We make this choice because settling with parties at a site in a piecemeal fashion is not more desirable than doing it at once. Then, we define three ranges. Regions that the percentage of sites with *de minimis* settlements is more than 25% higher than the percentage of NPL sites with twenty or more parties are labeled high users of *de minimis* settlements; regions in which the former percentage is more than 25% lower than the latter are labeled low users, and the remaining are labeled average users.

Table II reveals the following:

- (a) High users: Regions IV, VI, and X
- (b) Average users: Regions I, II, V, and VIII
- (c) Low users: Regions III, VII, and IX

This analysis reveals that the two regions with the highest number of total settlements (Regions I and V) and the region with the highest number of sites with at least one settlement (Region V) are not disproportionately high users of *de minimis* settlements.

## C. Timing of the Settlements and Its Impact on Transaction Costs

The central congressional objective in designing the provisions for *de minimis* settlements was that EPA resolve the legal obligations of parties with a small share of liability as early as possible in the cleanup process. A corollary of this directive is that *de minimis* settlements are likely to be ripe earlier than settlements with major parties. As noted above, this different congressional treatment of the two groups stems from the different ratio of transaction costs to liability costs that they face.<sup>158</sup> In this Section, we evaluate the extent to which EPA has settled with *de minimis* parties before it was able to do so with major parties, the timing of the settlements relative to the different stages of the cleanup process, and the relative use of the less cumbersome settlement instrument.

### 1. Pure versus Nonpure Settlements

To analyze the question whether EPA is, in fact, entering into *de minimis* settlements before it is able to resolve the liability of the major parties, we define four separate categories of *de minimis* settlements: (1) *de minimis* settlements that are part of a global settlement; (2) settlements with only *de minimis* parties, but which were preceded by a global settlement; (3) settlements, other than global settlements, with both *de minimis* and major parties; and (4) pure *de minimis* settlements. In this taxonomy, we define a global settlement to be one pursuant to which the major parties, or a group of major parties, undertakes to perform the RD/RA at the site.<sup>159</sup> In all but the fourth category, EPA is resolving the liability of the major parties either consecutively with, or earlier than, the liability of *de minimis* parties. The distribution of settlements is shown in Table III.

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<sup>158</sup>See *supra* Section I.D.

<sup>159</sup>We do not include in category settlements in which the major parties undertake to perform only the RI/FS. We do include one settlement in which the major parties undertook only the operation and maintenance, and in which EPA performed the remainder of the RD/RA.

**Table III: Pure de Minimis Settlements and Settlements Including Major Parties**

Type of Settlement	Number of Settlements	Number of Sites
Global	20	20
Prior Global	9	3 <sup>a</sup>
Major Parties	3	3
Pure <i>de Minimis</i>	33	19
Total	65	45

<sup>a</sup>To avoid double-counting, this box includes only sites for which the prior global settlement did not include a *de minimis* component. Otherwise, the site is included in the box above.

Table III shows that of the 65 *de minimis* settlements in our sample, only 33 (51%), were pure *de minimis* settlements. More importantly, of the 45 sites in our sample, there were pure *de minimis* settlements in only 19 (42%).<sup>160</sup> In all other cases, the *de minimis* settlement did not occur before EPA was in a position to resolve the liability of the major parties.

Table IV presents the regional distribution of the four types of settlements, and in parentheses, the number of sites at which such settlements occur. The comparison of Tables I and IV reveals that the distribution of sites with pure *de minimis* settlements is more even than the overall distribution of sites *de minimis* settlement. Indeed, the range for sites with pure *de minimis* is from zero (Region IX) to four (Region I), whereas the overall range is from one site (Regions III and IX) to eleven sites (Region V).

This observation suggests that the differences, revealed in Table I, in the number of sites with *de minimis* settlements may be attributable more to different rates of success in negotiating settlements with major parties, and less to success in negotiating earlier settlements with *de minimis* parties.<sup>161</sup>

<sup>160</sup>Note, moreover, that our methodology may overestimate the number of pure *de minimis* settlements. Conceivably, some of them may have been preceded by settlements with major parties, but that the settlement document did not indicate this fact.

<sup>161</sup>This hypothesis cannot be conclusively tested without a study of all settlements with major parties—an undertaking that is well beyond the scope of this project. An alternative hypothesis might be that, though regions are equally successful in negotiating settlements with major parties, some regions prefer to formulate the global settlement as a *de minimis* settlement and a settlement with the major parties rather than as one, global settlement.

**Table IV: Regional Distribution of Settlements  
by Reference to the Presence of Major Parties**

Region	Global	Prior Global	Major Parties	Pure
I	3 (3)	3 (0) <sup>a</sup>	0	11 (4)
II	0	1 (1)	0	3 (3)
III	0	0	0	4 (1)
IV	2 (2)	2 (1)	2 (2)	2 (1)
V	7 (7)	2 (0)	1 (1)	5 (3)
VI	5 (5)	1 (1)	0	1 (1)
VII	0	0	0	1 (1)
VIII	0	0	0	2 (2)
IX	1 (1)	0	0	0
X	2 (2)	0	0	4 (3)
Total	20 (20)	9 (3)	20 (20)	33 (19)

<sup>a</sup>To avoid double-counting, this box includes only sites for which the prior global settlement did not include a *de minimis* component. Otherwise, the site is included in the box to the left.

Table V exhibits the relative distribution of waste contributor and landowner settlements. It shows that only 47% of *de minimis* waste contributor settlements (28 out of 59), but 83% of *de minimis* landowner settlements (5 out of 6) were of the pure type. Moreover, out of the sites with *de minimis* waste contributor settlements, there were pure settlements in only 37.5% (15 out of 40). In contrast, out of the sites with *de minimis* landowner settlements, there were pure settlements in 83% (5 out of 6).

**Table V: Distribution of Waste Contributor  
and Landowner Settlements by Reference  
to the Role of Major Parties**

Type of Settlement	Waste Contributor Settlements	Landowner Settlements
Global	20 (20)	0
Prior Global	8 (2)	1 (1)
Major Parties	3 (3)	0
Pure <i>de Minimis</i>	28 (15)	5 (5) <sup>a</sup>
Total	59 (40)	6 (6)

<sup>a</sup>One site had both a landowner and two waste contributor settlements. It is counted once in each column, resulting in a total of 46, rather than 45, sites.

This difference in the proportion of pure waste contributor and landowner settlements is significant. Landowner settlements typically involve only one, or at most a handful, of settling defendants. In contrast, waste contributor settlements often involve dozens, sometimes even hundreds, of defendants. Thus, waste contributor settlements are far more likely to result in a large aggregate saving of transaction costs. In evaluating the success of the program at reaching early *de minimis* settlements, the figures for waste contributor settlements are therefore more significant than the figures for all settlements.

## 2. Stage in the Cleanup Process

In this Section, we categorize the *de minimis* settlements by reference to the stage in the cleanup process at which they were entered. We define three stages: pre-RI/FS settlements are in Stage 1; settlements entered after the completion of the RI/FS but before the completion of the ROD are in Stage 2, and settlements entered after the completion of the ROD are in Stage 3.<sup>162</sup> In turn, for Stage 3 settlements, we indicate, by a number following the decimal point, the number of years, to the nearest whole year, that elapsed between the completion of the ROD and the entry of the settlement; thus, a settlement entered two years after the completion of the ROD would be indicated as being in Stage 3.2. For some post-ROD settlements, this information is missing; we denote them as being in Stage 3.M.<sup>163</sup> Finally, the category labeled "other" consists of removal, rather than remedial, actions.<sup>164</sup>

Table VI shows the distribution of all settlements as well as the distribution of the first *de minimis* settlement at each site.

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<sup>162</sup>Two of the sites in our sample had more than one physical location, and these locations were at different stages of the cleanup process. One of the sites had more than one operable unit, and these were at different stages of the cleanup process. In these cases, we considered the latest stage that the site had reached.

<sup>163</sup>Because few of the settlements that we obtained indicate the date on which they became final, we generally use, instead, the date on which notice of the settlement was published in the *Federal Register*, triggering a 30-day comment period. In cases in which there was no publication in the *Federal Register*, we used, instead, the date of the latest signature by the parties. Thus, our estimates actually understate the time elapsed since the signing of the ROD. Nonetheless, our casual observation suggests that it is unlikely that a settlement would undergo modification following the *Federal Register* notice, and that the major subsequent transaction costs are borne by EPA in responding to the comments. Thus, the method that we used may be a better proxy for the expenditure of transaction costs than the use of the dates on which the settlements became final.

<sup>164</sup>Two of the three sites in this category are not on the NPL. The remaining 43 sites in our sample are on the NPL.

Table VI: Timing of *de Minimis* Settlements

Stage	All Settlements	First Settlement at Each Site
1	1	1
2	3	3
3.0	4	3
3.1	10	10
3.2	13	11
3.3	20	10
3.4	2	0
3.5	2	0
3.M	6 <sup>a</sup>	4
Other	4	3
Total	65	45

<sup>a</sup>Three of the settlements in this category are landowner settlements and two of these were the first *de minimis* settlement at a site. One of the three remaining landowner settlements in our sample was entered after the RI/FS but before the ROD; the two others were entered one and three years after the signing of the ROD.

The table shows that the vast majority of the settlements were concluded in the post-ROD period. Of the 61 settlements that involved remedial action, 57 (93%) were entered after the signing of the ROD. The distribution of first settlements is not dramatically different. Out of the 42 that involved remedial action, 38 (90%) were entered after the signing of the ROD.

Moreover, on average, considerable time elapsed between the signing of the ROD and the entry of the *de minimis* settlement. Of the sample of 51 post-ROD *de minimis* settlements with available data, the average lag between the ROD and the settlement was 2.24 years. Of the sample of 34 first *de minimis* settlements at a site, the average lag was 1.82 years.

To put these numbers in some perspective, recall from Section I.A that after the listing of a site on the NPL, on average 20 months elapse until the beginning of the RI/FS, 38 additional months until the issuance of the ROD and 43 additional months until the completion of the RD/RA--a total of 101 months from the NPL listing to the completion of the cleanup. Thus, the average post-ROD *de minimis* settlement is concluded 85 months after NPL listing, whereas the average first *de minimis* settlement at a site is concluded 80 months after NPL listing.<sup>165</sup>

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<sup>165</sup>We did not attempt to determine the actual date on which each site was listed on the NPL. We use the average statistics about the time that it takes sites to pass through the various stages of the cleanup process as a way of establishing a rough comparison of the transaction costs entailed in pre-ROD and post-ROD settlements.

Next, we take into account the three post-RI/FS but pre-ROD settlements and the single pre-RI/FS settlement, as well as of the seven post-ROD settlements for which we do not know the time elapsed following the ROD. We assume that the former were entered at the mid-point of the ROD and RI/FS processes, respectively, and the latter were average post-ROD settlements. Then, the average *de minimis* settlement is concluded 81 months after NPL listing and the average first *de minimis* settlement at a site is concluded 75 months after NPL listing.

There are no studies about the pattern of expenditure of transaction costs throughout the cleanup process. If one were to assume that the expenditures are evenly distributed over time, by the time the average *de minimis* settlement is entered, the *de minimis* parties have expended approximately 80% of the total transaction costs that would be expended if the case did not settle until after the completion of the cleanup.<sup>166</sup>

Consider the effects of accelerating the settlement process. If, instead, the average *de minimis* settlement was entered after the RI/FS but before the ROD, only 39 months would elapse between NPL listing and the settlement. The transaction costs expended, under the same assumption, would be only about half of what they are now. Even more dramatically, if the average *de minimis* settlement were entered before the RI/FS, only 10 months would elapse between the NPL listing and the settlement. The result, under the assumption of uniform expenditure of transaction costs, would be transaction costs approximately eight times lower than they are now.

In Table VII, we study the timing of the four categories of *de minimis* settlements that we defined on the basis of the role of major parties. Specifically, we attempt to determine whether there are significant differences between what we call nonpure settlements (global settlements, prior global settlements, and settlements major parties) on the one hand, and nonglobal settlements on the other. As before, the first number in each box counts all settlements; the numbers in parenthesis count only the first *de minimis* settlement at each site.

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<sup>166</sup>Of course, additional transaction costs would be expended if there were litigation rather than settlement following the conclusion of the cleanup. It is likely, however, that the discovery costs undertaken during the cleanup would be far greater than the costs of the trial.

Table VII: Relationship Between the Timing of Settlements and the Role of the Major Parties

Stage	Global	Prior Global	Major Parties	Total Nonpure	Pure <i>de Minimis</i>	Total
1	0 (0)	0 (0)	1 (1)	1 (1)	0 (0)	1 (1)
2	1 (1)	0 (0)	0 (0)	1 (1)	2 (2)	3 (3)
3.0	1 (1)	0 (0)	0 (0)	1 (1)	3 (2)	4 (3)
3.1	7 (7)	1 (1)	0 (0)	8 (8)	2 (2)	10 (10)
3.2	7 (7)	1 (0)	0 (0)	8 (7)	5 (4)	13 (11)
3.3	4 (4)	5 (2)	1 (1)	10 (7)	10 (3)	20 (10)
3.4	0 (0)	0 (0)	0 (0)	0 (0)	2 (0)	2 (0)
3.5	0 (0)	2 (0)	0 (0)	2 (0)	0 (0)	2 (0)
3.M	0 (0)	0 (0)	0 (0)	0 (0)	6 (4)	6 (4)
Other	0 (0)	0 (0)	1 (1)	1 (1)	3 (2)	4 (3)
Total	20 (20)	9 (3)	3 (3)	32 (26)	33 (19)	65 (45)

We use this table to compare the timing of nonpure and pure *de minimis* settlements. Taking into account all the settlements, 94% of the nonpure settlements (29 out of 31 relevant observations) and 93% of the pure settlements (28 out of 30 relevant observations) were entered after the signing of the ROD. Moreover, the average post-ROD nonpure settlement was entered 2.21 years after the issuance of the ROD, whereas the average post-ROD pure settlement was entered 2.27 years after the issuance of the ROD.

With respect to the distribution of first *de minimis* settlements at each site, 92% of the nonpure settlements (23 out of 25 relevant observations) and 88% of the pure settlements (15 out of 17 relevant observations) were entered after the signing of the ROD. Moreover, for post-ROD settlements, the average time elapsed from the issuance of the ROD was 1.87 years for nonpure settlements and 1.73 years for pure settlements.

As these statistics show, the average pure settlement is not entered significantly earlier than the average settlement in one of the categories involving major parties. This conclusion is somewhat counterintuitive. Indeed, a logical hypothesis, which our analysis seriously questions, is that pure *de minimis* settlements would be entered early in the cleanup process, at a time when the information necessary to resolve the liability of the major parties is lacking. Instead, it appears that the presence of pure *de minimis* settlements is attributable to site-specific difficulties, despite the presence of the necessary information, in negotiating settlements with major parties.

Table VIII shows, for the four regions with the largest number of *de minimis* settlements, the stage at which these settlements were entered. The



first number in each box counts all settlements; the numbers in parenthesis count only the first *de minimis* settlement at each site.

Table VIII: Timing of Settlements for Selected Regions

Stage	Region I	Region IV	Region V	Region VI
1	0 (0)	1 (1)	0 (0)	0 (0)
2	0 (0)	0 (0)	1 (1)	0 (0)
3.0	3 (2)	0 (0)	1 (1)	0 (0)
3.1	2 (2)	1 (1)	2 (2)	3 (3)
3.2	3 (2)	1 (1)	5 (4)	2 (2)
3.3	5 (1)	2 (1)	4 (2)	2 (2)
3.4	2 (0)	0 (0)	0 (0)	0 (0)
3.5	2 (0)	0 (0)	0 (0)	0 (0)
3.M	0 (0)	1 (1)	0 (0)	0 (0)
Other	0 (0)	2 (2)	2 (1)	0 (0)
Total	17 (7)	8 (7)	15 (11)	7 (7)

None of the regions had more than one pre-ROD settlements. For the post-ROD settlements, the average time elapsed between the signing of the ROD and the entry of the settlement, taking into account all *de minimis* settlements, was 2.41, 2.25, 2, and 1.85 years for Regions I, IV, V, and VI, respectively. Taking into account only the first *de minimis* settlement at a site, the average time elapsed between the signing of the ROD and the entry of the settlement was 1.29, 2, 1.77, and 1.85 years for Regions I, IV, V, and VI, respectively. The figures for each of the regions are roughly within half a year of the overall averages of 2.24 years for all settlements and 1.82 years for first settlements. The regional differences in timing are therefore not dramatic.

### 3. Settlement Instruments

We are interested in the choice between the use of consent decrees and administrative orders on consent because the latter do not require the assent of a third party (the court) and do not provide a formal forum for objections by nonsettlers. Thus, a settlement embodied in an administrative order is likely to be less cumbersome and, controlling for the timing of the settlement, is likely to involve a smaller expenditure of transaction costs on the part of the settling parties.

Of the 65 settlements in our sample, 47 (72%) were embodied in consent decrees and 18 in administrative orders on consent. For waste contributor settlements, the division was 43 consent decrees (73%) and 16 administrative

orders, whereas for landowner settlements, the division was 4 consent decrees (67%) and 2 administrative orders.

Table IX presents the distribution of the two types of instruments by reference to the role of the major parties in the settlement. The first number in each box counts all settlements; the numbers in parenthesis count only the first *de minimis* settlement at each site.

**Table IX: Distribution of Settlement Instruments by Reference to the Role of the Major Parties**

Type	Consent Decree	Administrative Order on Consent
Global	20 (20)	0 (0)
Prior Global	4 (2)	5 (1)
Major Parties	3 (3)	0 (0)
Pure	20 (8)	13 (11)
Total	47 (33)	18 (12)

The distribution of the first settlement at each site is almost identical to the overall distribution. Thirty-three out of 45 settlements (73%) were embodied in consent decrees.

Two of the four categories (prior global and pure) involve only *de minimis* parties. Some settlements in these categories used administrative orders and other consent decrees. In contrast, all of the settlements in the other two categories took the form of consent decrees; in fact, global settlements must take the form of consent decrees.<sup>167</sup>

Out of the 42 settlements in the categories that involve only *de minimis* parties, 24 (57%) were embodied in consent decrees. Of the 22 first settlements in these categories, only 10 (45%) took the form of consent decrees. In contrast, out of the remaining 20 settlements, 14 (70%) were entered as consent decrees. Thus, first settlements were significantly more likely than subsequent ones to be entered as administrative orders.<sup>168</sup>

Table X presents the timing of the settlements entered as consent decrees and administrative orders for the two categories involving only *de minimis* parties. Once again, the first number in each box counts all settlements; the numbers in parentheses count only the first *de minimis* settlement at each site.

<sup>167</sup>See *supra* Section III.A.1.h.

<sup>168</sup>At two sites at which the initial settlement was entered as a consent decree, however, subsequent ones were entered as administrative orders.

**Table X: Distribution of Settlement Instruments by Reference to the Timing of the Settlement**

Stage	Consent Decree	Administrative Order
1	0 (0)	0 (0)
2	0 (0)	2 (2)
3.0	1 (0)	2 (2)
3.1	2 (2)	1 (1)
3.2	2 (2)	4 (2)
3.3	13 (4)	2 (1)
3.4	2 (0)	0 (0)
3.5	0 (0)	2 (0)
3.M	4 (2)	2 (2)
Other	0 (0)	3 (2)
Total	24 (10)	18 (12)

All 24 consent decrees and 13 of the 15 relevant administrative orders (87%) were entered after the ROD.

For the post-ROD settlements, the average lag between ROD and settlement was 2.65 years for consent decrees and 2.27 years for administrative orders.

For first *de minimis* settlements at a site, all 10 consent decrees and 8 out of 10 relevant administrative orders (80%) were entered after the ROD. For the post-ROD settlements, the average lag was 2.25 years for consent decrees and 1.33 years for administrative orders.

Using the same assumptions as above, the average consent decree was entered 90 months after listing on the NPL, whereas the average administrative order was entered 79 months after listing on the NPL. The corresponding figures for the first *de minimis* settlements at a site are 85 and 67 months, respectively. Thus, administrative orders are entered, on average, almost one year, earlier in the cleanup process than consent decrees. For first settlements, the difference is one-and-a-half years.

While we have not attempted to systematically study this causal connection, we believe that two factors are at play. First, at a later stage, there is likely to have been more judicial involvement in the case, and a consent decree might therefore seem more appropriate. Second, the lesser degree of formality might speed up the settlement process.

In summary, an independent cost of resolving the liability of *de minimis* parties by means of global settlements, and of delaying the entry of such settlements, is the greater likelihood--indeed, the certainty in the case of global settlements--that the settlement instrument will be a consent decree rather than an administrative order.

## D. Terms of De Minimis Settlements for Waste Contributors

We focus in this Section of three issues. First, we study the maximum volumetric contribution consistent with *de minimis* status. Second, we analyze the four principal reopeners contemplated in the guidance documents: additional information, damages to natural resources, cost overruns, and further response action. Finally, we study the premiums used in exchange for the waiver of the latter two reopeners.

### 1. Maximum Volumetric Contribution

Out of our sample of 59 waste contributor settlements, we eliminated four categories. First, some settlements did not indicate the volumetric cutoff and merely restated the statutory standard that the contributions of the parties offered a settlement were minimal in comparison to the other hazardous substances at the facility. Second, some settlements expressed the maximum permissible volume in gallons, but did not indicate the total number of gallons at the site; thus, we were not able to calculate the percentage contributions. Third, for sites with multiple settlements, we considered only one settlement, except in the one case in which the cutoffs were different.<sup>169</sup> Fourth, in one site, the two settling parties contributed a very small amount of waste—lower than any of the cutoffs in other cases, and the settlement merely said that these amounts satisfied the requirements for *de minimis* settlements.<sup>170</sup>

We were left with 28 observations, revealing a range of 0.1% to 10%. These cutoffs therefore differ by a factor of 100. It is possible, however, that the 10% cutoff is somewhat aberrational because it involved a case in which the only settling party was the U.S. Air Force. Eliminating this settlement reduces the range to 0.1% to 2.5%—still a ratio of 25. Recall that the 1989 guidance document referred to a range of 0.2% to 2%.<sup>171</sup> Since, then, the range had increased two-and-a-half times.

We believe that two factors are the likeliest candidates to explain the differences: the EPA region that entered the settlement and the numbers of parties offered the settlement. As to the former, since the Superfund program delegates considerable discretion to the regions, and the guidance documents

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<sup>169</sup>The first waste contributor settlement in this case used a cutoff of 2.5% but the second used a cutoff of 0.85%.

<sup>170</sup>The percentage contributions were 0.071% and 0.051%, respectively. We did include, however, a settlement that stated the amount contributed by the single settling party (0.7%) and indicated that this amount was consistent with *de minimis* status. The reason was that in this case, the contribution was higher than cutoffs for other settlements.

<sup>171</sup>See *supra* Section III.A.1.b.

are not clear as to what the cutoff should be, it is possible that different regions would adopt disparate policies.

As to the latter, the overall number of PRPs at an NPL site varies greatly, from almost one thousand to only one. A condition for *de minimis* settlements is that a sufficiently large proportion of the liability remain unresolved. For a given proportion of unresolved liability, the cutoff for *de minimis* status is likely to decrease as the number of parties increases. For example, at a site with 50 waste contributors, a 1% cutoff, covering 40 parties, might leave 90% of the liability unresolved. In contrast, at a site with 200 waste contributors, it could take a cutoff of 0.5%, which would accord *de minimis* status to 120 PRPs to leave the same proportion of the liability unresolved. Thus, in general, one would expect that sites in which a larger number was offered a settlement would have a smaller cutoff.<sup>172</sup>

Table XI shows for each different cutoff used, the number of settlements using that cutoff, the region in which the settlements were entered, and the range of the number of parties offered the settlement. For this purpose, we define the following ranges:

- (a) Range 1: 9 or fewer parties;
- (b) Range 2: 10-19 parties;
- (c) Range 3: 20-49 parties;
- (d) Range 4: 50-99 parties;
- (e) Range 5: 100 or more parties.

Where a region entered more than one settlement with a given cutoff, the number of such settlements is indicated in parentheses.

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<sup>172</sup>The problem is actually somewhat more complicated. It is possible that, for some settlements, EPA has extended the offer only to a subset of the qualifying parties. In those cases, it would be more appropriate to consider the number of parties below the cutoff. The full analysis of this question would require the examination of the waste-in lists, which are almost never appended to the settlements.

It might also be appropriate to consider, instead, the total number of parties at a site. We attempted to do this, using a database prepared by EPA that contains, for each site, the number (and identity) of the parties that received formal notice of their potential liability. We noticed, however, that in several cases, this number was smaller than the number of parties offered a *de minimis* settlement, indicating that EPA does not send notices to all PRPs.

We also had difficulty, in some cases, in distinguishing between the number of parties that were offered the settlement and the number that accepted the settlement. In some cases, the appendix lists all the parties below the cutoff and there is therefore no ambiguity. In other cases, however, the body of the settlement contains the identity of the settling parties. It is possible, in these cases, that other parties may have been offered the settlement as well and rejected it, but there is no way to tell from the settlement documents. In those cases, we used the number mentioned in the settlement. This problem is present primarily in cases involving a small number of parties.

Table XI: Percentage Cutoffs in Ascending Order

% Cutoff	# of Settlements	Region	Range of # of Parties
0.1	1	V	5
0.1455	1	V	5
0.2	2	I	5
		V	3
0.25	1	VI	5
0.32	1	VII	1
0.4499	1	V	5
0.6	1	V	1
0.7	1	I	1
0.714	1	I	5
0.85	1	X	1
1	11	I(3)	2, 5(2)
		II(1)	2
		IV(4)	1, 2, 4, 5
		V(2)	4, 5
		VI(1)	M
1.2	1	V	4
1.36	1	X	4
1.6	1	VI	1
2	1	X	4
2.5	1	X	1
10	1	X	1

It is interesting that 11 of the 28 settlements (39%) used a single cutoff: 1%. One other cutoff (0.2%) was used by two settlements. All the other cutoffs were used by only one settlement. Six settlements used cutoffs above 1% and 11 used cutoffs below 1%.

No other cutoff was used by more than two settlements.

To enable a clearer analysis of potential regional disparities in the choice of percentage cutoffs, Table XII shows these cutoffs sorted by region. It also provides, for each settlement, the range of the number of parties.

Table XII: Percentage Cutoffs (Sorted by Region)

Region	# of Settlements	% Cutoffs	Range of # of Parties
I	5	0.2	5
		0.7	1
		1	2, 5(2)
II	1	1	2
III	0	N.A.	N.A.
IV	4	1(4)	1, 2, 4, 5
V	9	0.1	5
		0.1455	5
		0.2	3
		0.4499	5
		0.6	1
		0.714	5
		1(2)	4, 5
		1.2	4
		0.25	5
VI	3	1	M
		1.6	1
		0.32	1
VII	1	0.32	1
VIII	0	N.A.	N.A.
IX	0	N.A.	N.A.
X	5	0.85	1
		1.36	4
		2	4
		2.5	1
		10	1

The table reveals that region IV used the same cutoff (1%) in all four settlements. These settlements covered the whole spectrum of the range of the number of parties. Region I used a single cutoff (also 1%) in three of the five settlements, and Region V used the 1% cutoff in two of its nine settlements. With the exception of these three cases, no region used a single cutoff in more than one case. With the exception of Region IV, it is difficult to discern from this table any consistent intra-regional approaches to the determination of cutoffs.

Table XIII sorts the percentage cutoffs by the range of number of parties, to help assess the extent to which this factor accounts for the variability in cutoffs.

**Table XIII: Percentage Cutoffs (Sorted by the Range of the Number of Parties)**

Range of # of Parties	# of Settlements	% Cutoffs	Region		
1	8	0.32	VII		
		0.6	V		
		0.7	I		
		0.85	X		
		1	IV		
		1.6	VI		
		2.5	X		
		10	X		
		2	3	1(3)	I, II, IV
				0.2	V
3	1	0.2	V		
4	5	1(2)	IV, V		
		1.2	V		
		1.36	X		
		2	X		
		5	10	0.1	V
				0.1455	V
				0.2	I
				0.25	VI
0.4499	V				
4	5	0.714	V		
		1(4)	I(2), IV, V		
		1	VI		
M	1	1	VI		

For each of the ranges with several settlements, there is a large variation in the cutoffs used. Perhaps most surprising, is the variation in Range 5 (more than 100 parties offered a settlement), where cutoffs from 0.1% to 1% were used. The differences are not explained by different regional policies: in the latter range, Region V spanned the whole spectrum.

## 2. Reopeners

### a. Additional Information on Volume

Of the 59 settlements in our sample, 50 (85%) used a reopener to be triggered by additional information on the settling party's volumetric contribution. Of the 40 sites with at least one *de minimis* settlement by waste contributors, this additional information reopener was used in 34 (85%). Two of these sites (both in Region I) involved multiple settlements in which the



reopener was used for some settlements but not others.<sup>173</sup> In addition, the reopener was not used in six other sites (in Regions I, II, IV, V, and, in two in Region X)

The nature of the additional information that will trigger this reopener varies greatly across settlements. The following formulations are used:

(1) the volume contributed by the settling party is greater than the cutoff used to determine *de minimis* status;<sup>174</sup>

(2) the settling party's actual volumetric contribution exceeds the amount attributed to it at the time of the settlement (and the reopener is triggered);<sup>175</sup>

(3) the settling party's actual volumetric contribution exceeds the amount attributed to it at the time of the settlement (but the reopener is not triggered; instead, the settling party pays an additional proportional amount);

(4) the settling party's actual volumetric contribution significantly exceeds the amount attributed to it at the time of the settlement;

(5) the settling party made material misrepresentations concerning its volumetric contribution; and

(6) the settling party made any misrepresentations concerning its volumetric contribution.

Table XIV shows the regional distribution of the various triggers. For each site with multiple settlements, if the settlements include a reopener for additional information concerning volume, the triggers are identical. Thus, the table displays the trigger information for one settlement per site. The table identifies the triggers by the numbers set forth in the preceding paragraph, and indicates instances of more than one trigger per settlement.

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<sup>173</sup>One of these instances involved two settlements with parties having limited solvency. Perhaps this factor accounts for the different treatment of these settlements. The explanation in the other instance is less easily discernible.

<sup>174</sup>In two settlements that use this formulation, the actual cutoff is not indicated.

<sup>175</sup>In one case using this formulation, there is an exception for changes that result from recomputations of the contributions of the major parties.

Table XIV: Triggers for the "Additional Information" Reopener with Respect to Volume

Region	(1)	(2)	(4)	(1)&(3)	(1)&(5)	(1)&(4)	(1)&(6)
I	3	0	0	0	2	0	1
II	1	0	0	0	0	0	0
III	0	0	1	0	0	0	0
IV	3	2	0	0	0	0	0
V	3	1	2	3	0	1	0
VI	7	0	0	0	0	0	0
VII	0	1	0	0	0	0	0
VIII	0	0	0	0	0	0	0
IX	1	0	0	0	0	0	0
X	2	0	0	0	0	0	0
Total	20	4	3	3	2	1	1

The table shows that the most common trigger is the cutoff for *de minimis* status (Trigger 1)--the only one contemplated in the guidance documents.<sup>176</sup> It was used in 20 out of 34 instances (59%). Five regions (Region I, II, VI, IX, and X) used it for all its settlements, though Region I occasionally coupled it with another trigger. Two other regions (Regions III and VII), in contrast, never used it. The remaining two regions with waste contributor settlements (Regions IV and V) used it in some sites but not in others. Of these, Region V used the greatest number of different formulations. Its ten settlements used five different types of triggers.

#### b. Additional Information on Toxicity

Of the 59 waste contributor settlements in our sample, 46 (78%) used a reopener to be triggered by additional information on the toxicity of the wastes contributed by the settling party. Of the 40 sites with at least one *de minimis* settlement by waste contributors, this additional information reopener was used in 30 (75%). Two of these sites (both in Region I) involved multiple settlements in which the reopener was used for some settlements but not others.<sup>177</sup> In addition, the reopener was not used in ten other sites (in Regions I, II, IV, in two in Region V, in three in Region VI, and in two in Region X). Four of these settlements used the "additional information" reopener for

<sup>176</sup>See *supra* Section III.A.1.f.

<sup>177</sup>One of these instances involved two settlements with parties having limited solvency. Perhaps this factor accounts for the different treatment of these settlements. The explanation in the other instance is less easily discernible.

volume but not for toxicity (in Region V and three in Region VI). There were no settlements for which the opposite was true.

There is some variation with respect to the triggers, but less than in the case of the reopener for additional volumetric information. For each site with multiple settlements, if the settlements include a reopener for additional information concerning volume, the triggers are identical. As in the preceding subsection, in these cases we count only one trigger per site.

Recall the statutory requirement that the toxic or other hazardous effects of the substances contributed by a *de minimis* party be "minimal in comparison to other hazardous substances at the facility."<sup>178</sup> The guidance documents, in turn, require that the substances not be "significantly more toxic and not of significantly greater hazardous effect than other substances at the facility," whereas the model administrative order and consent decree requires that the substances not "contribute disproportionately to the cumulative toxic or other hazardous effects of the hazardous substances at the Site."<sup>179</sup> At 24 sites, the reopener is triggered by additional information showing a violation of one of these requirements. We do not provide a breakdown for these alternatives because we believe that EPA uses them interchangeably.

This standard trigger appeared at four additional sites (all in Region I) in combination with another trigger. At two of these sites, the reopener was also triggered if the certifications made by the settling parties were materially inconsistent with information in their possession at the time of the certification. At one site the additional trigger was any misrepresentation by the settling party. At the fourth site the reopener was also triggered if the additional information revealed that the settling party had contributed PCBs, or substances containing PCBs.

At one site (in Region III), the reopener was triggered if additional information revealed that the toxicity of the substances contributed by a *de minimis* settlor materially exceeded the toxicity attributed to those substances at the time of the settlement. Finally, at one site (in Region VII), the reopener was triggered if additional information showed that the settling party had contributed substances other than asbestos.

### c. Damages to Natural Resources

The statute provides that any settlement, including a *de minimis* settlement cannot contain a covenant not to sue for damages to natural resources under the

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<sup>178</sup>See *supra* Section I.D.

<sup>179</sup>See *supra* Section III.A.1.b.

trusteeship of the United States unless the federal natural resource trustee has agreed in writing to such a covenant.<sup>180</sup>

The settlements exhibit the following approaches toward the reopener for damages to natural resources (some settlements use a combination of more than one of these approaches):

(1) the covenant not to sue explicitly excludes claims for damages to natural resources;

(2) the covenant not to sue explicitly includes claims for natural resources damages except those that may be asserted by one federal trustee;

(3) the covenant not to sue explicitly includes only federal claims for damages to natural resources;

(4) the covenant not to sue does not exclude claims for damages to natural resources;

(5) the covenant not to sue includes claims for damages to natural resources and indicates that the federal natural resources trustee has agreed to this waiver;

(6) the covenant not to sue includes claims for damages to natural resources and indicates that the federal natural resources trustees have agreed to the waiver, but the settlement provides that one of the trustees may payment from the settling parties up to a specified amount;

(7) the covenant not to sue includes claims for damages to natural resources but there is no indication that the federal natural resources trustee has agreed to this waiver.

(8) the covenant not to sue does not exclude claims for damages to natural resources but the settlement includes a payment for such damages; and

(9) the covenant not to sue explicitly includes claims for damages to natural resources and the settlement includes a payment for such damages.

Table XV shows the regional distribution of the various formulations. Because there is considerable variation in the use of this reopener among settlements concerning the same site, in this section we categorize all 59 waste contributor settlements in our sample. For boxes in which there were multiple settlements at a given site, we indicate the number of sites after a slash. The table identifies the different formulations by the numbers set forth in the preceding paragraph.

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<sup>180</sup>See 42 U.S.C. § 9622(j)(2).

Table XV: Reopener for Damages to Natural Resources

Reg.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
I	2/1	1	0	4	2/1	6/1	0	1	1
II	0	0	0	1	0	0	0	1	0
III	0	0	0	1	0	0	3/1	0	0
IV	6/5	0	0	1	0	0	0	0	0
V	8/6	0	4/2	1	0	0	0	2	0
VI	5	0	0	2	0	0	0	0	0
VII	1	0	0	0	0	0	0	0	0
VIII	0	0	0	0	0	0	0	0	0
IX	5/4	0	0	1	0	0	0	0	0
X	0	0	0	0	0	0	0	0	0
Total	27/22	1	4/2	11	2/1	6/1	3/1	4	1

The table shows that the most common formulation is the one in which the settlement's covenant not to sue excludes damages to natural resources. It was used in 27 out of 59 cases (46%). In an additional eight cases (14%), the covenant includes such claims but expressly indicates compliance with the statutory requirement that the federal natural resources trustee agreed to the waiver.

In the remaining 24 instances (41%), the covenant not to sue does not fully exclude federal claims for damages to natural resources, but there is no indication that the statutory requirement of written consent from the federal trustee has been met. In 19 of these cases (32%), the settlement does not explicitly refer to a payment for natural resources damages. It may be, in these cases, (1) that the natural resources in question were not under the trusteeship of the United States, (2) that there was no damage to natural resources under the trusteeship of the United States, (3) that the trustee agreed to the covenant not to sue despite the lack of reference to such agreement in the settlement, or (4) that the statutory requirement concerning the covenant not to sue for damage to natural resources was violated.

The table also reveals great lack of uniformity within some regions. Most notably, Region I used seven of the nine formulations, and Region V used four of the nine.

#### d. Cost Overruns and Further Response Action

The vast majority of the settlements do not include reopeners for either cost overruns or further response action. These reopeners are missing in 50 of the 59 settlements in our sample (85%), covering 33 of the 40 sites (83%).

The remaining nine settlements, which pertain to seven sites, take the following approaches:

(1) Three settlements, covering two sites (both in Region X), include only reopeners for further response action but not for cost overruns;

(2) Two settlements (in Regions II and VI) contain reopeners for cost overruns and further response action only if the cleanup costs exceed a pre-determined amount greater than the estimate of cleanup costs at the time of the settlement;

(3) Two settlement involving one site (in Region V) gave the parties the choice between paying a higher premium and not being subject to reopeners for cost overruns and further response action, or paying a lower premium and facing these reopeners;

(4) One settlement (in Region IV) covers only past costs and provides that the settling parties will pay a pre-determined percentage of the future costs; and

(5) One settlement (in Region II) includes both reopeners.

### 3. Premiums

The guidelines contemplate that the reopeners for cost overruns and further response action can be waived in return for the payment of a premium.<sup>181</sup> Unfortunately, our analysis of this issue is somewhat hampered because the settlements often do not explain how they determine each party's payment and it is therefore not possible to ascertain whether the parties are paying a premium in addition to their volumetric share of the cleanup costs. Such information was lacking in 17 settlements, accounting for 16 sites.

A large majority of the remaining 42 settlements, in our sample, which involved 25 sites,<sup>182</sup> charged *de minimis* parties a premium. This approach was followed in 38 settlements (90%). No premium was charged in four settlements, involving three sites. Two of these were the last two settlements discussed in the preceding section, in which the parties either had committed themselves to pay a percentage of the future costs or faced reopeners for cost overruns and further response action. In the other two cases (involving a single site in Region I) the parties had limited solvency and the settlement took account of this fact.

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<sup>181</sup>We do not deal here with premiums charged to parties because of their failure to accept an earlier settlement offer.

<sup>182</sup>At one site (in Region I), information about the use of a premium was missing for two settlements, a premium was charged in four settlements, and no premium was charged in two settlements.

Of the 38 settlements in our sample for which we know that EPA charged a premium, information about how the premium was computed cannot be discerned in eight settlements, covering six sites. As to the other settlements, there is an important inconsistency in the approach followed. Some charge a premium a percentage of the total cleanup costs at the site whereas others charge a percentage of only the future cleanup costs at the site. Thus, a party charged a 50% premium on total cleanup costs of \$1,000,000 pays its proportionate share based on costs of \$1,500,000 while a party charged a 50% premium on future (estimated) clean-up costs of \$800,000 pays its proportionate share of actual costs already incurred and its proportionate share of \$1,200,000.

In 9 of the remaining 30 settlements, involving 6 sites, the premium was charged only on the estimated future costs. In 7 of these 9 settlements (involving 5 of the 6 sites), a fixed percentage was charged. These premiums ranged from 75% of the estimated future costs to 250%.<sup>183</sup> In all of these cases, EPA waived the reopeners for cost overruns and further response action. In the other settlements (1 site), the settling parties were given the choice between a premium of 50% with reopeners for cost overruns and future response action, or a premium of 150% without these reopeners.

In 1 of the 30 settlements, the premium was a percentage of past costs (10%) and a different percentage of future costs (50%). In this settlement, EPA waived the reopener for cost overruns, but retained the reopener for further response action.

In 20 settlements (10 sites), the premium was charged on the basis of total costs: past costs plus expected future costs. In 18 of these cases (8 sites), a fixed percentage was used: these ranged from 20.95% to 210%.<sup>184</sup> Except in 2 of these settlements (1 site), EPA waived the reopeners for cost overruns and further response action. In the remaining case, it waived only the cost overrun reopener. The premiums charged in these settlements were 20.95% and 25%. Eliminating them changes the lower end of the range to 53.33%.

One of the 20 settlements charged a premium of 100% to parties that had contributed less than 1% of the wastes and 50% to parties that had contributed

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<sup>183</sup>This large premium might be explained, at least, in part by the fact that the settlement applied only to a party with a minuscule contribution, and that the party's total payment was only \$510. The next highest premium in this category was 180%.

<sup>184</sup>It is possible, though we could not tell from the text of the settlement that the 210% premium includes a 100% premium for failing to have settled earlier. See *supra* note 181. Indeed, this settlement is the third at a site, and the previous two charged a premium of 110%. Even if this were the case, however, the range would not change dramatically; the next highest premium is 200%.

more than 1%. The other settlement charged a premiums of 60 and 200%, respectively, for costs involving the first and second operable units.

We now seek to determine whether this large variation is attributable to different policies on the parts of the regions, or whether it is attributable to different stages in the cleanup process. With respect to the latter factor, one would expect that uncertainty with respect to cleanup costs would decrease at later stages in the cleanup process and that smaller premiums would then be required.

We define the following ranges of premiums:

- (a) Range 1: less than 100%;
- (b) Range 2: greater than or equal to 100 and less than 200%;
- (c) Range 3: greater than 200%.

For each range we use the letters *F* and *T* to denote that the premium is charged on future costs and total costs, respectively.

For consistency, we include only settlements that waived both the reopeners for cost overruns and further response action. In the case of the settlements with variable percentages, we use the higher in the case of different percentages based on the contributions of the parties (because the smaller parties, which paid a higher percentage, were far more numerous) and the lower in the case of different percentage for operable units (because we use the date of the first ROD to determine the site stage in the cleanup process). Where the number of sites is different from the number of settlements, we indicate it following a slash.

Table XVI shows the regional distribution of premiums. It shows that, for settlements that charged a premium on total costs, the most prevalent range was Range 1. It was used in 11 out of 18 settlements (61%), involving 4 out of 10 sites (40%). In 5 out of the 18 settlements, (28%), covering 4 out of 10 sites (40%), Range 2 was used. Only 2 settlements (11%), involving 2 sites (20%), used Range 3.

In contrast, for settlements that charged a premium only on future costs, the most prevalent range was Range 2. It was used for 7 out of 9 settlements (78%), covering 5 out of 7 sites (71%). The lower and higher ranges were used only in one settlement each.



Table XVI: Regional Distribution of Premiums

Region	1F	1T	2F	2T	3F	3T
I	0	6/2	0	2	0	0
II	0	0	0	0	0	0
III	0	4/3	0	0	0	0
IV	1	0	1	0	1	0
V	0	0	5/3	2/1	0	2
VI	0	1	0	0	0	0
VII	0	0	1	0	0	0
VIII	0	0	0	0	0	0
IX	0	0	0	0	0	0
X	0	0	0	1	0	0
Total	1	11/4	7/5	5/4	1	2

The fact that, in general, a lower premium was charged when the premium is levied on total costs might suggest some consistency in approach. It is possible, of course, that the premium is computed on the future cost component only, but that it is then expressed as a percentage of total costs. There is nothing in the settlements, however, to indicate that EPA is following such an approach. In fact, where the premium is charged on the total costs, the settlements generally do not separate the future cost component.

With respect to intra-regional inconsistencies, we can make two observations. First, one region (Region V) charged a premium on the future cost component in some settlements and on total costs in other settlements. Second, the two regions with the largest numbers of settlements (Regions I and V) exhibited considerable variation in the amount of premiums charged.

Table XVII shows the relationship between the premium charged and a site's stage in the cleanup process. The table does not suggest that higher premiums are charged earlier in the cleanup process. For example, the 1T, 2T, and 3T premium ranges each contain sites in Stages 3.0 and 3.3. Moreover, for premiums levied only on the future cost component, the two sites in Stage 3.3 are in Range 1 and Range 3, respectively, whereas all of the sites in Range 2 are in earlier stages of the cleanup process.

Table XVII: Relationship Between Premiums  
and Stage in the Cleanup Process

Stage	1F	1T	2F	2T	3F	3T
2	0	0	1	0	0	0
3.0	0	2/1	0	1	0	1
3.1	0	2/1	2	2	0	0
3.2	0	1	2/1	1	0	0
3.3	1	6/2	0	1	1	1
Other	0	0	2/1	0	0	0
Total	1	11/5 <sup>a</sup>	7/5	5	1	2

<sup>a</sup>The number of sites is different than in Table XVI because, for some sites, the settlements took place at different stages in the cleanup process.

## E. Summary

Our empirical study offers clear answers to the three questions we posed at the outset of this section. First, *de minimis* settlements have been underutilized as a settlement tool. EPA has invoked them at roughly 20% of the sites at which they might be used. Second, even at those sites at which *de minimis* settlements have been employed, they have been entered into only late in the process, often in conjunction with settlements with major parties, and generally using the most formal settlement tools. This use is at odds with the congressional intent for the use of *de minimis* settlements. Third, important terms of the settlements, including the triggers for some reopeners and the premiums charged for them, vary substantially across sites.

## V. Surveys of EPA Regional Offices and Private Attorneys

During May and June 1992, we administered a detailed questionnaire to attorneys in all ten EPA regional offices. We first obtained from EPA Headquarters the names of the attorneys most familiar with *de minimis* settlements. We also obtained from William A. White, Esq., the Enforcement Counsel for Superfund, a letter urging these individuals to cooperate with our study. We then wrote to the attorneys, and indicated in an attachment, the types of questions that we would be asking. We conducted the survey by telephone, using as a guide a more detailed form that we had prepared. In

June and July 1992, we conducted a survey of attorneys who had represented *de minimis* and *nonde minimis* PRPs at sites in which *de minimis* settlements were reached.

This Part sets forth the major findings of both surveys. These concern the methods used to initiate and encourage *de minimis* settlements, the settlement approaches used by EPA, the role of the major parties with respect to *de minimis* settlements, the timing of the *de minimis* settlements, the criteria used to determine *de minimis* status, the nature of reopeners and premiums, and the distribution of *de minimis* moneys.

### A. Methods to Initiate and Encourage De Minimis Settlements

We asked about the methods that the Regions currently use to initiate *de minimis* settlements and to encourage the formation of *de minimis* groups that will present settlement offers to EPA. The unanimous response was that EPA generally does not take the lead, and prefers to wait for the PRPs to organize themselves into groups and to approach EPA if they are interested in exploring the possibility of a *de minimis* settlement. None of the Regions had a standard policy for initiating or encouraging *de minimis* settlements.

Some Regions, however, do take some initiative, though mostly on an *ad hoc* basis. Not surprisingly, Regions I and V, which have entered into the largest number of *de minimis* settlements, also appear to make the most efforts in this regard.

Region I stated that it generally has a "kickoff" meeting after the RI/FS is completed and a week or two before sending the special notice for RD/RA, which triggers a period for negotiation.<sup>185</sup> At the "kickoff" meeting, Region I will indicate that it envisions a *de minimis* proposal at the site and that it will accept *de minimis* proposals from the PRPs. In addition, Region I usually sends out a *de minimis* offer at the same time that it enters into RD/RA negotiations in order to achieve a global settlement. Despite these efforts, its preference is to let the major and *de minimis* PRPs work out a settlement among themselves, thus saving EPA's resources.

In one recent case, Region III--after deciding to pursue a *de minimis* settlement--mailed a packet to all PRPs containing EPA's guidance concerning *de minimis* settlements. The mailing requested that PRPs seeking *de minimis* status explain why they qualified. Region III then made a determination as to which parties met the requirements for *de minimis* treatment and issued a

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<sup>185</sup>See 42 U.S.C. § 9622(e).

unilateral order to the major PRPs at the site to perform the necessary remedy. Negotiations with the *de minimis* PRPs followed.

Region V sometimes initiates *de minimis* discussions after it obtains the waste-in information. In such cases, it informs the relevant PRPs that they are candidates for *de minimis* settlements, and often makes formal settlement proposals. For the majority of *de minimis* settlements that are not part of global settlements, Region V has started the discussions. The Region will circulate a draft *de minimis* proposal in cases in which there is no organized group of *de minimis* PRPs, but a large number of such parties.

Region IX stated that, in cases for which it believes a *de minimis* settlement is appropriate, it will suggest in its general notice letters that PRPs consider organizing a *de minimis* group. In one case involving thousands of PRPs, it is planning to include a return postcard in the first general notice that it will send all PRPs. The card has two boxes asking (1) whether the PRPs are interested in organizing a *de minimis* committee and (2) if the PRP is not interested in organizing a committee, whether the PRP is interested in participating in a *de minimis* committee. The postcard requests a response within 30 days.

Region X indicated that, during the last year, it has sought to determine when *de minimis* settlements might be appropriate. In such cases, it notifies the PRPs and asks them to provide information in support of their claim for *de minimis* status, and to indicate whether they are interested in a *de minimis* settlement.

The view of the PRPs that we interviewed was that *de minimis* discussions are generally initiated by the PRPs, and not by EPA. Several attorneys indicated that, despite pressure from EPA Headquarters, the Regions are not particularly interested in pursuing *de minimis* settlements. Several also urged EPA to become more involved in the *de minimis* settlement process; one of them advocated the use of a system of incentives and disincentives to induce the Regions to comply with the guidelines of EPA Headquarters.

One attorney complained that the settlement process would be greatly aided if EPA circulated the waste-in information earlier in the process. It was stated that the *de minimis* parties are often ready to cash-out early, but can proceed only at EPA's slow pace. It was also noted that it would be prohibitively expensive for the *de minimis* parties to prepare the waste-in information themselves.

Another attorney noted that the process of formation of *de minimis* committees was itself haphazard, as it requires a party with a great deal of commitment and a willingness to expend significant resources. He has found that, among small parties, there is often none that wishes to take a leadership role. He suggested that EPA fill the vacuum.

## B. Settlement Approaches

We asked whether the Regions employ a standard settlement form different from the EPA model form, and whether they employ any distinctive approaches. There were several important findings in response to this set of questions.

First, the Regions expressed a strong and almost unanimous preference for global settlements—*de minimis* settlements entered concurrently with settlements pursuant to which the major parties undertake to perform the cleanup; the PRPs confirmed that EPA preferred this approach. Global settlements are generally not reached until the RD/RA phase, and, by definition, do not involve resolving the responsibility of the *de minimis* parties before the Agency is in a position to negotiate with the major parties.

On this question, Region I indicated that if its negotiations with the major parties do not succeed, it will issue a *de minimis* administrative order on consent on a take-it-or-leave-it basis. It will not engage in negotiations.

Region V encourages the *de minimis* parties to deal directly with the major parties. In fact, it takes the position that a separate offer for a *de minimis* settlement following a special notice letter is not a good faith offer for the purposes of section 122(e); at this stage, the *de minimis* proposal should come as part of an agreement (by the major parties) to perform the remedy. It will deal directly with the *de minimis* PRPs only if the major parties are being uncooperative.

Second, while the Regions generally indicated that they use the model agreement, they make adjustments on a site-specific basis, and engage in negotiations over at least some of the terms. Not surprisingly, several Regions indicated that *de minimis* settlements place a high burden on EPA's managerial resources. Only Regions I and V (those with the highest number of settlements) stated that at present they proceed on a take-it-or-leave-it basis.

In particular, Region V stated that when it circulates a draft of a settlement, it asks for written comments (by the *de minimis* and major parties), and indicates that it may respond unilaterally to any of the comments that it receives. It also states, however, that the cost terms are not negotiable. After reviewing the comments, it sends out a final settlement offer on a take-it-or-leave-it basis.

## C. Role of the Major Parties

We inquired about whether *nonde minimis* parties typically object to the entry of *de minimis* settlements, the types of objections that they raise, and whether such complaints pose a significant threat to the *de minimis* settlement

program. There was virtual consensus that the major parties often create significant roadblocks to *de minimis* settlements. The areas of conflict include the criteria used to define *de minimis* parties, the reliability of the waste-in lists, the amount of the premium, and, in particular, the uses of the proceeds of the *de minimis* settlement.

It is clear from the responses that the major parties see themselves involved in a zero-sum game with the *de minimis* parties: the greater the *de minimis* settlement, the less that the major parties will have to pay. Moreover, Region I noted that, except in the case of global settlements, major parties do not favor *de minimis* settlements because they believe that they can do better by pursuing actions for contribution. Their opposition can lead to a substantial delay of the *de minimis* settlement and a substantial drain of EPA resources. While it does not appear that they have been successful at blocking *de minimis* settlements once negotiations were underway, they seem to have diminished the appetite of several of the Regions for pursuing such settlements.

The most important specific issue to be raised by the responses is that the major parties have a strong preference for global settlements that include a *de minimis* component, rather than *de minimis* settlements that occur earlier. Region V indicated that in the former case the proceeds of the *de minimis* settlement are given to the major PRPs as seed money for the site remedy, whereas under the latter case, they are placed in the Superfund.

It would seem that the effect of turning the proceeds from *de minimis* parties to the major PRPs in a global settlement would be to leave unpaid a greater part of EPA's past costs. The major PRPs that undertake the cleanup might believe, however, that EPA will seek these costs from nonsettling parties, if there are any, or that it might be more willing to compromise them in exchange for a cleanup of the site. Background conversations with EPA officials revealed that such compromises do, in fact, take place.

The PRPs noted substantial tension between *de minimis* and major parties. One attorney stated that this tension is fueled in part by the lack of sufficiently specific guidance on *de minimis* settlements. He stated that, if such guidance existed, the major PRPs would not demand that the *de minimis* parties pay exorbitant premiums.

Several attorneys indicated that the major parties generally have the capacity to derail *de minimis* settlements. They added that, as a result, the Regions are reluctant to become involved with *de minimis* settlements because of the risk that they will derail a settlement with the major parties.

## D. Timing of the De Minimis Settlements

We asked a series of questions concerning the stage of the cleanup process during which the Regions pursue *de minimis* settlement. There was disagreement about the desirability of pre-ROD settlements. There were also reports that EPA Headquarters has begun to pressure the Regions into concluding *de minimis* settlements at earlier stages of the cleanup process.

Region II indicated that the lack of concrete estimates for the remedial costs should not preclude the entry of a *de minimis* settlement, because the matter can be addressed through the use of an appropriately high premium.

Region V stated that in the past it had not done *de minimis* settlements until the RI/FS was almost complete, but that it is currently attempting to proceed earlier (even before the RI/FS is started), in response to pressure from EPA Headquarters. In the case of global settlements, however, it cannot proceed until the ROD is complete, since global settlements are part of an RD/RA consent decree and the special notice for negotiations concerning the RD/RA is not issued until after the ROD stage.

Despite its willingness to consider early settlements, Region V said that complaints about waste-in lists are frequent, and that by the time they are resolved the RI/FS is well-along. At that point, there is a "mind set" that since global settlement negotiations may take place only one year later, it might not make sense to pursue a separate *de minimis* settlement. It appears clear that the Region will not take the initiative in this regard if the ROD will soon be issued.

In contrast to the view that early *de minimis* settlements are possible, Region I stated that most of the information about waste-in contributions and cost estimates for the site remediation are available only at or around the time that RD/RA negotiations commence, and that earlier settlements are therefore undesirable. As a result, it favors global settlements.

Regions III, VII, and X stated that until the ROD is completed, the list of PRPs is not sufficiently accurate and the estimates of cleanup costs are too unreliable to permit it to prepare a *de minimis* settlement.

Region X added, however, that recently it has begun to attempt earlier settlements in response to pressure from EPA Headquarters for the entry of *de minimis* settlements before the completion of even the RI/FS. Region IX also reported the interest of EPA Headquarters in earlier settlements but noted that the Regions do not know what the remedial costs will be. It indicated that for early settlements to be possible, reliable methods for estimating costs would have to be developed.

## E. De Minimis Status

We asked the Regions whether they apply any specific criteria to determine a PRP's eligibility for *de minimis* status. The responses revealed that these determinations are made on an *ad hoc* basis. Although the Regions purport to be guided by the EPA documents, these, as we have indicated above,<sup>186</sup> do not make more concrete the statutory requirement that the amount of hazardous substances contributed be "minimal."

Region I stated that it has used cutoffs of 0.5%, 1%, and 2%, and that in general it will not use cutoffs larger than 2%. Region III responded that in one case it used a 2% cutoff, but based it on the contributions of only the identified PRPs. Region V reported that it looks for a "clean break" in the waste-in list, to avoid the argument that its cutoff is arbitrary. It also indicated that *de minimis* parties tend to comprise 15% to 30% of the total volume at the site. Region VIII reported that in one case, one of the criteria for *de minimis* status was the accuracy of the information submitted in response to EPA's requests. Region X stated that a party that contributed around 1% will generally be considered *de minimis*. It added, however, that it might accord *de minimis* status to a party that contributed 4%, if, for example, the remaining parties contributed around 20%.

One private attorney stated that in some cases EPA appears to have a predetermined cutoff in mind when it considers a *de minimis* settlement proposal. He added that EPA is reluctant to reveal when it is applying predetermined criteria, or what terms might be negotiable.

## F. Reopeners and Premiums

We inquired generally about the Regions' use of reopeners in *de minimis* settlements. Every Region appears to use the additional information reopener, but many favor releasing the cost overrun and further response action reopeners in exchange for a premium.

For example, Region I stated that the purpose of *de minimis* settlements is to extinguish the liability of *de minimis* parties. It views the cost overrun reopener as inconsistent with this objective. Region V stated that it tends to give PRPs a menu of choices--that is, they can pay a higher premium and not be subject to certain reopeners.

With respect to the premium charged in exchange for the cost overrun and further response action reopeners, we asked whether the Regions had used any standardized guidelines. There appears to be no established procedure for

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<sup>186</sup>See *supra* Section III.A.1.b.



setting these premiums and the Regions indicated that the premiums are determined in a site-specific manner.

### G. Distribution of De Minimis Moneys

We inquired about how the Regions apportion the proceeds of *de minimis* settlements. The answers revealed no uniform approach to the question.

Region I indicated that one advantage of a global settlement is that the *de minimis* money goes to the major PRPs at the site. In the case of earlier *de minimis* settlements, the money goes to the Superfund. Region IX stated that the use of the proceeds of *de minimis* settlements is a subject for negotiation with major PRPs. Region X indicated that it will put all the recovered *de minimis* money into the Superfund to reimburse EPA for past costs; it did contemplate the possibility that the settlement might be for more than the past costs.

For the most part, Region V tends to apply the vast majority of the moneys it recovers from *de minimis* PRPs to EPA's past costs and places them in the Superfund. This trend may be changing because of direction from EPA Headquarters that a larger portion of *de minimis* settlements be applied to future response costs. Particularly when there are identifiable nonsettlers who have been sitting on the sidelines, Region V is willing to carve out some of its past costs and apply the recovered amounts to fund future remedial costs because in Region V's view, it would not be fair to recover all of its past costs, thereby benefiting the nonsettlers (they might, however face contribution actions from the settlers). But in most cases Region V will recover all past costs first and place any excess money in an escrow account managed by the PRPs to fund future oversight and future work.

Background discussions with EPA officials revealed that there exists confusion as to whether the Agency can hold the proceeds of a *de minimis* settlement in escrow with the intention of, at a later time, turning it over to the PRPs performing the cleanup. It is clear that EPA can set up a site-specific special accounts to finance its own cleanup activities, and that it can turn over the money to the major parties as part of a global settlement. The problem arises when substantial time elapses between the *de minimis* settlement and a settlement with the major parties pursuant to which they undertake the cleanup at the site. This factor may also push in the direction of global settlements, rather than early *de minimis* settlements.

The private attorneys expressed serious concerns about the allocation of *de minimis* moneys. Several attorneys complained about the lack of more guidance from EPA Headquarters on the question. There seemed to be consensus that the major parties would oppose a *de minimis* settlement unless

at least the future cost component of the proceeds was used for the site cleanup rather than being put back in the Superfund. One attorney indicated that, in several cases, EPA had taken the latter approach. Another commented that the issue of the distribution of the proceeds has the greatest potential for undermining *de minimis* settlements.

One attorney stated that some Regions attempt to recover all of their past costs out of the *de minimis* settlement, whereas others are willing to use a certain proportion for future costs and recover the remainder of their past costs from recalcitrant PRPs. He added that the approach used also seems to depend on the identity of the EPA attorney handling the case, and that the issue of apportionment is subject to negotiation.

## VI. Concluding Remarks

### A. Recommendations for Improving the De Minimis Settlement Program

In light of the five principles set forth in Part II, we can make several recommendations for improvements in the *de minimis* settlement program. Because some of the proposals concern the allocation of authority between EPA Headquarters and the Regions, we do not refer to EPA as a single entity. Where relevant, we indicate whether our recommendations are congruent with the recent guidance document on waste contributors.

#### 1. The Regions should actively seek *de minimis* settlements, by informing PRPs of their potential eligibility as soon as a waste-in list has been assembled, and by circulating a draft settlement agreement.

Part V reveals that the predominant approach has been for Regions to wait for *de minimis* groups to form and take the first step in proposing *de minimis* settlements. But the formation of such groups requires the expenditure of transaction costs by private parties and can take considerable time. Moreover, the groups might not properly represent the smaller *de minimis* parties who have the greatest interest in settlement.

We believe that the approach generally followed until now violates Principle I: it is not sufficiently attentive to the transaction costs that the Superfund program imposes on *de minimis* PRPs. Instead, in sites that look like likely vehicles for *de minimis* settlements, the Regions should take the lead. The recent guidance document on waste contributors constitutes a step in the right direction by granting the Regions discretion to circulate draft settlements to parties identified as *de minimis* but does not go far enough: the Regions should be required to do this in every case involving PRPs that, at the time of the release of the waste-in list, appear to qualify for *de minimis* status.

#### 2. The Regions should not wait until the later stages of the cleanup process before entering *de minimis* settlements, and should not rely on global settlements as the mechanism for resolving the liability of *de minimis* parties.

Part IV shows that the vast majority of *de minimis* settlements were entered after the ROD. Part V reveals that the majority of the Regions have shown

little interest in undertaking pre-ROD settlements. In addition, they have favored resolving the liability of *de minimis* parties as part of global settlements pursuant to which the major parties undertake cleanups. The favored strategy has been to require *de minimis* parties to negotiate directly with the major parties to determine their contribution to the cleanup cost.

These approaches violate Principles I and III. With respect to Principle I, it ought to be clear that the major parties will not include, as one of their objectives, the minimization of the transaction costs borne by *de minimis* parties. Thus, EPA abdicates its responsibility to promote this goal by requiring that the *de minimis* PRPs deal directly with the major parties.

Principle III--that fairness should be determined *ex ante*--is undermined by excessive concern with the accuracy of the estimates of cleanup costs. Instead, the emphasis should be on designing procedures to estimate these costs at early stages (see Recommendation 7).

### **3. The Regions should not engage in time-consuming negotiations over *de minimis* settlements.**

Part IV shows great variation in the contents of provisions in *de minimis* settlements that ought to be relatively standard. As to reopeners, for example, the lack of homogeneity is staggering. There also are significant differences in the definition of *de minimis* status and use of *de minimis* moneys. Given the existence of model documents, this wide variation suggests that negotiation over settlement terms is common. Part V confirms that, indeed, several of the Regions engage in such negotiation.

This practice violates Principle V: *de minimis* settlements are not the place for individualized dispute resolution. In particular, we believe that negotiation over terms increases the conflict between *de minimis* parties and major parties, and, if early *de minimis* settlements are entered, between EPA and the major parties.

The recent guidance document on waste contributors and the practice of Region V are generally consistent with this recommendation.

### **4. EPA Headquarters should provide guidelines for the determination of appropriate payments and terms in *de minimis* landowner settlements.**

Current guidelines on *de minimis* landowner settlements contemplate some payment but they do not specify either how to compute this payment or its relationship to the estimated costs of cleanup. Principles of equal treatment argue for guidelines promulgated by EPA Headquarters.

**5. EPA Headquarters should create and maintain a central repository of *de minimis* settlement documents, readily accessible to the public.**

Assurance that similarly situated parties are treated similarly requires knowledge of what actual practice has been. Moreover, efforts to standardize the practice would benefit from knowledge of the variants already employed. Currently, documents, if available at all, are dispersed throughout the regions and hence difficult, if not impossible, to consult.

**6. EPA Headquarters should make further efforts to standardize the general terms of *de minimis* settlements.**

Part of the heterogeneity in the approaches of the Regions, and the significant differences even across sites in the same Region is due to the lack of concrete guidance on several important issues. Most striking is the variation in the volumetric determinant used to determine *de minimis* status. Part IV reveals a range of 0.1% to 10%. It is theoretically possible that these differences are appropriate given site-specific differences, but the Regions' responses in Part V provide little support for such speculation: none set forth an approach for determining an appropriate cutoff. Similarly, Part IV reveals great variation in the additional information reopener--variation that seems difficult to explain on the basis of site-specific differences.

This lack of uniformity violates Principle V. It increases the incentives for parties to protest the terms of individual settlements, and increases the probability that such settlements could be successfully challenged in court. Unfortunately, the recent guidance document on waste contributors does nothing to address these concerns.

**7. EPA Headquarters should establish, as a high priority, a mechanism for estimating the cleanup costs at a site, as it is undesirable for this task to be performed at the regional level.**

The most prevalent response given by the Regions in Part V is that pre-ROD *de minimis* settlements are impractical because of the lack of sufficiently reliable information on cleanup costs. The recent guidance document has attempted to deal with this question by, as a first step, asking the Regions to identify similar sites, and review RODs, as well as more current information. It also suggests that the Regions could determine the unit costs for different remedial technologies. As a second step, EPA Headquarters has undertaken to obtain information to ease the Regions' burdens.

The allocation of responsibility contained in this guidance document is misplaced. The burden involved in the tasks that the Regions are being asked to perform is staggering. At the outset, one should note that it does not make sense for a Region to confine itself to its own sites in determining the costs of similar cleanups, as the inventory of comparable sites that have progressed sufficiently in the cleanup process may be small or nonexistent. Moreover, the guidance document does not appear to contemplate such limitation. It is not clear what a Region would know about sites in other Regions. In addition, there is no central repository for RODs, and no EPA database contains their full terms. While they can generally be obtained from the individual Regions, this process is cumbersome and time-consuming.

As a result of these difficulties, we are extremely skeptical that the Regions will make cost estimates in the manner contemplated by the guidance document. The responsibility should be placed squarely on EPA Headquarters. We are cognizant of the difficulties involved, but they are magnified many times if the task must be performed by the Regions, even as a temporary matter.

#### **8. EPA Headquarters should attempt to establish presumptively applicable premiums for different stages in the cleanup process, and should direct that the premium benefit the parties that take responsibility for the cleanup.**

Not surprisingly, an element over which there is substantial conflict among EPA, and the *de minimis* and major parties is the premium charged in exchange for a waiver of the cost overrun and further response action reopeners. Part IV reveals a wide variation: it identifies a range of 53.33% to 250%. This difference is not explained, on its face by the different stage at which the settlements were entered. Moreover, the interviews with the Regions discussed in Part V do not reveal a standardized method for calculating them. Neither is such an approach set forth in any of the guidance documents. As indicated in Recommendation 6, the potential for conflict will be diminished substantially if a standardized approach is devised.

If EPA Headquarters undertakes the task of establishing estimates for cleanup costs (see Recommendation 7), it should also attempt to determine appropriate premiums by comparing, for each stage in the cleanup process, the actual cleanup costs with its estimates.

Moreover, Parts IV and V revealed large discrepancies in the uses of the premium, and, in particular, the extent to which they could benefit the major parties if they agree to perform the cleanup. Consistent with Recommendation 9, EPA Headquarters should clarify that the parties bearing the risk of higher costs as a result of their agreement to undertake a cleanup, should also benefit

if the cost estimates in the *de minimis* settlement (including the premium) are higher than the actual cost of the cleanup.

**9. EPA Headquarters should clarify the mechanisms by which a Region can set up a site-specific special account with the proceeds of *de minimis* settlements and hold the moneys until it is ready to settle with the major parties.**

The discussion of the guidance documents in Part III, as well as our own background discussion with EPA officials reported confusion as to whether EPA can set up an account to finance a cleanup in cases in which it will not perform the cleanup itself and negotiations with the major parties are not sufficiently advanced. In these cases, the funds are generally placed in the Superfund and, in violation of Principle IV, are not made available to finance a later cleanup by the major parties. These parties, understandably, object to this outcome, and the resulting friction is one of the reasons why several of the Regions favor global settlements--a practice inconsistent with Recommendation 2.

EPA Headquarters should clarify that such accounts are permissible and should urge the Regions to employ them in appropriate cases.<sup>187</sup>

## B. Suggestions for Further Research

This study reveals several areas for further research. First, it underscores the problem of requiring a government agency to take into account the transaction costs that it imposes on private parties. Second, it provides an important example of the problems of coordination in a large federal agency; it is clear that EPA Headquarters, perhaps because of pressure from Congress, appears more interested than the Regions in settling early with *de minimis* parties. Third, it identifies important theoretical issues involving the study of settlements with multiple defendants; here, the *de minimis* and major parties have different sets of interests, due in part to the different ratio of transaction costs to cleanup costs that they face, and are subject to a different legal regime. Fourth, it points to the need for further empirical research on the structure of transaction costs faced by defendants.

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<sup>187</sup>EPA recently adopted procedures for the use of funds in Superfund cash-out settlements. See Memorandum of Bruce Diamond on Interim Cashout Settlement Procedures (January 7, 1992). These procedures, however, do not clear up the confusion discussed here.