Section 10,680

Statement of Position 96-1
Environmental Remediation Liabilities

October 10, 1996

NOTE

Statements of Position on accounting issues present the conclusions of at least two-thirds of the Accounting Standards Executive Committee, which is the senior technical body of the Institute authorized to speak for the Institute in the areas of financial accounting and reporting. Statement on Auditing Standards No. 69, *The Meaning of* Present Fairly in Conformity With Generally Accepted Accounting Principles, identifies AICPA Statements of Position that have been cleared by the Financial Accounting Standards Board as sources of established accounting principles in category *b* of the hierarchy of generally accepted accounting principles that it establishes. AICPA members should consider the accounting principles in this Statement of Position if a different accounting treatment of a transaction or event is not specified by a pronouncement covered by Rule 203 of the AICPA Code of Professional Conduct. In such circumstances, the accounting treatment specified by this Statement of Position should be used, or the member should be prepared to justify a conclusion that another treatment better presents the substance of the transaction in the circumstances.

Part 1

Overview of Environmental Laws and Regulations

.01 The objective of this part is to provide accountants with an overview of key environmental laws and regulations. It is intended to be a separate, nonauthoritative component of this Statement of Position (SOP).

.02 Although the remainder of this SOP focuses on environmental remediation liability issues, this part includes brief discussions of key pollution control and other environmental laws as well as a more extensive discussion of environmental remediation liability laws.

Chapter 1
INTRODUCTION

.03 Beginning in the early 1970s, Congress and state governments began paying increased attention to legislation designed to protect the environment. In just twenty years, these efforts have changed dramatically the manner in which business is carried out in the United States.

.04 For instance, today, new loan agreements only rarely do not contain extensive environmental representations, warranties, and indemnities. Real estate development is likewise affected by environmental considerations, such as whether the project area contains wetlands or whether past activities could have adversely affected the soil or groundwater. The possibility of becoming subject to liability for environmental **remediation**[1] costs associated with past waste **disposal** practices based on strict liability can affect transactions involving the acquisition or merger of enterprises or the purchase of land. In sum, the explosion of federal and state environmental laws and regulations has affected all manner of business transactions.

.05 Although this SOP focuses on both state and federal United States laws and regulations, environmental considerations are also important for foreign operations. Environmental laws and regulations in many countries are similar to United States laws. The legal and regulatory climates in other countries are evolving. Regardless of whether the host countries' environmental laws are as stringent as those in the United States, entities can often be held liable for environmental damages under a variety of nonenvironmental statutes and broad legal theories.

.06 Environmental laws may be thought of as being of two kinds. First, there are laws that impose liability for remediation of environmental pollution arising from some past act. Second, there are pollution control and pollution prevention laws. Some environmental laws cover both categories. This SOP focuses principally on federal laws, but many states have enacted analogous statutes.

.07 The first kind of environmental law, environmental remediation liability laws, includes individual statutes as well as response provisions in other statutes. The most important of these are the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), which together are referred to as Superfund, and the **corrective action** provisions of the Resource Conservation and Recovery Act of 1976 (RCRA). Under Superfund's current broad liability provisions, the U.S. Environmental Protection Agency (EPA) may order liable parties to remediate sites or use Superfund money to remediate them and then seek to recover its costs and additional damages. Similarly, under the corrective action provisions of RCRA, the EPA may order "facilities that treat, store, or dispose of **hazardous waste**" to clean up **releases** of **hazardous waste constituents** associated with past or ongoing practices.

.08 Environmental laws of the second kind, laws intended to control or prevent pollution, are directed at identifying or regulating pollution sources or

[1] Terms defined in the glossary [paragraph .178] are in **boldface** type the first time they appear in this SOP.

reducing emissions or discharges of pollutants. Myriad statutes regulate sources of pollution, including the pollution control provisions of RCRA (solid and hazardous wastes), the Clean Water Act (discharge of pollutants into the waters of the United States and to publicly owned treatment works, or POTWs), and the Clean Air Act (emission of pollutants into the atmosphere). Other examples are the Emergency Planning and Community-Right-to-Know Act (EPCRA) and the Pollution Prevention Act of 1990. Pursuant to EPCRA, facilities that store chemicals over threshold amounts must submit certain information to local, state, and federal environmental and emergency response authorities. EPCRA also includes requirements for reporting of episodic releases of toxic chemicals, as well as annual reporting of toxic chemical releases that occur as a result of normal business operations for specified manufacturing and other activities. The Pollution Prevention Act, among other things, requires facilities subject to EPCRA's reporting requirements to also report pollution source reduction and recycling activities.

.09 Before discussing key statutes in more detail, it is worth mentioning two legal concepts that are expressly or implicitly incorporated into Superfund: strict liability, and joint and several liability. Strict liability statutes, such as CERCLA, impose liability without regard to the liable party's fault. Thus, a waste generator that disposed of its waste at approved facilities, in accordance with all then-current requirements, having exercised "due care," would nevertheless be liable. Where liability is joint and several, any party deemed liable is potentially responsible for all of the associated costs. Under CERCLA, for instance, a waste generator that is responsible for a small percentage of the total amount of waste at a site may be held liable for the entire cost of remediating the site.

.10 Also noteworthy is that wastes need not be hazardous wastes for there to be environmental remediation liability. If the waste generator "arranged for disposal" of wastes containing **hazardous substances** (at any concentration level and regardless of whether the substances were defined as, or known to be, hazardous at the time of disposal), and a "release" of hazardous substances has or could occur, the waste generator could be subject to environmental remediation liability.

Chapter 2

ENVIRONMENTAL REMEDIATION LAWS

.11 The vast majority of federal environmental remediation provisions are contained in the Superfund laws, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Superfund Amendments and Reauthorization Act (SARA), and in the corrective action provisions of the Resource Conservation and Recovery Act of 1976 (RCRA). Typically, the United States Environmental Protection Agency (EPA) utilizes Superfund to clean up facilities that are abandoned or inactive or whose owners are insolvent; however, Superfund can be and is also applied to sites still in operation. RCRA provisions apply to hazardous waste treatment, storage, and disposal facilities that are still in operation or have closed recently.

Superfund

.12 Congress enacted CERCLA in 1980 to facilitate the remediation of abandoned waste sites. CERCLA established a program to identify sites where hazardous substances have been or might be released into the environment; to ensure that they are remediated by responsible parties or the government; to compensate the United States, states, municipalities, and tribes for damages to natural resources; and to create a procedure for claims against responsible parties by parties who have cleaned up sites or spent money to restore natural resources. The act also created a $1.6 billion trust fund to cover the costs associated with **orphan sites** and costs incurred while the EPA seeks reimbursement from **potentially responsible parties (PRPs)**. In 1986, SARA increased the amount of the trust fund to $8.5 billion, broadened the provisions of Superfund, provided more detailed standards for remediation and settlement provisions, and broadened criminal sanctions. The increase in the trust fund is supported by increased taxes on the petroleum industry and a tax on corporate alternative minimum taxable income. At the time of this writing, Superfund is again in the process of reauthorization, and there is a potential for further changes to the law as part of this process.

.13 Superfund places liability on the following four distinct classes of responsible parties:

a. Current owners or operators of sites at which hazardous substances have been disposed of or abandoned

b. Previous owners or operators of sites at the time of disposal of hazardous substances

c. Parties that "arranged for disposal" of hazardous substances found at the sites

d. Parties that transported hazardous substances to a site, having selected the site for treatment or disposal

This liability is imposed regardless of whether a party was negligent, whether the site was in compliance with environmental laws at the time of the disposal, or whether the party participated in or benefitted from the deposit of the haz-

ardous substance. Parties that disposed of hazardous substances many years ago—including the years preceding CERCLA's enactment—at sites where there is, was, or may be a release into the environment, may be liable for remediation costs.

.14 *Hazardous substance* is a much broader term than *hazardous waste*. It includes any substance identified by the EPA by regulation, pursuant to a number of federal statutes. Covered, for example, are substances considered to be *toxic pollutants* under the Clean Water Act or *hazardous air pollutants* under the Clean Air Act. The various lists of hazardous substances identified by the EPA contain more than one thousand chemicals and chemical compounds.

.15 Petroleum and any derivative or fraction that is not specifically listed or designated as a hazardous substance are specifically excluded from the federal definition of a hazardous substance contained in Superfund. Also excluded are natural gas, natural gas liquids, liquefied natural gas, and synthetic gas of pipeline quality. (Discharges of petroleum into the surface waters or shorelines of the United States are covered under several other federal laws.) The protection afforded by this petroleum exclusion is narrow, however. For example, lead (a hazardous substance) that is added to gasoline would not be covered by the petroleum exclusion because it is not an indigenous constituent of petroleum. Further, many state laws that are analogous to Superfund do not provide for a petroleum exclusion.

.16 Hazardous substances are often integral components of materials that are not hazardous wastes. And, although a threshold quantity of a hazardous substance must be released in order to create a reporting obligation, there is no threshold quantity that gives rise to liability. Thus, discarding industrial equipment on which there is leaded paint may not trigger a reporting obligation, but if that equipment is discovered at a Superfund site, it may be sufficient to identify the disposer as a PRP.

.17 The courts have interpreted CERCLA to impose strict liability. In other words, responsible parties are liable regardless of fault. Moreover, through EPA-initiated legal action, liability under CERCLA may be joint and several. If a PRP can prove, however, that the harm is divisible and there is a reasonable basis for apportionment of costs, the PRP may ultimately be responsible only for its portion of the costs. This scheme of liability means that any responsible party can potentially be liable for the entire cost of remediating a site, notwithstanding that the party is responsible for only a small amount of the total hazardous substances or waste at the site and did nothing improper.

.18 Statutory defenses to CERCLA liability are limited. Essentially, they are an act of God; an act of war (but not a response to an act of war, such as the manufacturing of munitions); and, in limited circumstances, an act or omission of a third party. There is an additional defense available to owners of property affected by hazardous substances known as the *innocent landowner* defense, which applies to landowners that acquired properties after hazardous substances were disposed of on them and that did not know or have reason to know about the existence of the hazardous substances. In order to use this defense, however, a landowner must establish that it made "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice." What constitutes "all appropriate inquiry" has been the subject of substantial litigation. It can be said, however, that a landowner that gains such actual knowledge and subsequently transfers the property without disclosure forfeits this defense.

.19 In order to mitigate the potentially harsh effects of the strict, joint and several, and retroactive liability scheme, however, Superfund does permit responsible parties to sue other responsible parties to make them contribute to the cost of the remediation or to recover money spent on remediation.

.20 The EPA has several potent enforcement tools available to it under Superfund. Most significant is the EPA's power to issue a **unilateral administrative order** to responsible parties requiring them to take a **response action** at a site where there is "an imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release [of a hazardous substance] from a facility." A respondent who fails to perform the response action or fails to report as required under CERCLA is potentially subject to $25,000 per day in penalties. In addition, if the EPA performs the action, it may recover up to four times its costs in damages and penalties (that is, actual costs plus treble damages). Judicial review of an EPA administrative order is not available until after the remedy is implemented, money is spent, and the EPA commences an enforcement action for cost recovery. Thus, even a party with a reasonably good defense to liability takes great risk in not complying with an EPA order.

.21 Costs to a PRP may include cleanup costs (**containment, removal, remedial action**), enforcement costs (for example, legal), government oversight costs, and natural resource damages (see the section herein entitled "Natural Resource Damages Under Superfund" in paragraphs .48 through .50). Though CERCLA does not provide for personal injury or property damage suits, suits for injury to health or property (referred to as toxic torts) may also be brought by third parties under various legal theories.

Stages of the Superfund Remediation Process

.22 The following is a discussion of the Superfund remediation process. The stages of this process are also depicted in figure 1, "Sequence of a Typical Superfund Remediation Process," in paragraph .39. The subsequent section, "Potentially Responsible Parties Identification and Allocation" [paragraphs .40 through .47], discusses stages of PRP involvement in the remediation process.

Site Identification and Screening

.23 Beginning in 1981, the EPA identified more than thirty thousand sites for scrutiny based on reports filed by companies pursuant to section 103(c) of CERCLA in which they disclosed locations where they had disposed of hazardous substances. This information formed the basis for a database called the **Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS or CERCLA Information System).**

.24 Each site in the CERCLIS database has undergone or will undergo a preliminary assessment of available information as a first step in determining what, if any, action is needed at the site. Based on this information, a site may be dropped from further consideration, or a site investigation or inspection may be performed. This involves a visit to the site by EPA representatives and, usually, limited sampling, which provides the information necessary to rank the site according to the Hazard Ranking System, a mathematical rating scheme that combines the potential of a release to cause harm to people or the environment with the severity or magnitude of these potential situations and the number of people that could be affected. Using the numerical scores from

this scheme, the EPA and the states prioritize sites and allocate resources for further investigation, enforcement of remediation, and remediation. Sites receiving high scores (28.5 or above) are proposed for inclusion on the **National Priorities List (NPL)** for remedial action, which generally is a long-term operation involving permanent solutions to the extent practicable.

Removal Action

.25 Some sites may be determined to require a **removal action**, which is a relatively short-term or emergency response taken where there is an imminent and substantial endangerment to the public health or welfare or the environment. In such cases, the EPA may undertake or order PRPs to undertake any appropriate removal action to prevent, abate, stabilize, minimize, mitigate, or eliminate a release or threatened release. A removal action may occur at any stage of the remediation process. Moreover, sites need not be on the NPL for the EPA to undertake or order removal actions.

Remedial Investigation

.26 The remedial investigation is a comprehensive study, usually performed by environmental engineers, that seeks to delineate the nature and extent of hazardous substances at a site, assess potential risks posed by the site, and define potential pathways for exposure. The remedial investigation usually involves extensive sampling of soil and groundwater in and around the vicinity of the site.

Risk Assessment

.27 A site-specific **baseline risk assessment** identifies hazards, assesses exposure to the hazardous substances and their toxicity, and characterizes and quantifies the potential risks posed by the site. A baseline risk assessment often is performed during the feasibility study phase.

Feasibility Study

.28 Following the remedial investigation, a feasibility study is performed. The feasibility study uses the information generated by the remedial investigation to evaluate alternative remedial actions and recommend one. The feasibility study—

- Identifies a list of potential remedial alternatives.
- Estimates the cost of each remedial alternative.
- Screens the alternatives for their ability to meet technical, public health, and environmental requirements and, if other considerations are equal, their cost-effectiveness; evaluates their ability to be implemented in a reasonable time frame given available technologies; and eliminates inferior alternatives from further evaluation.
- Completes a detailed analysis of the screened alternatives with respect to the criteria established by the EPA.

.29 The **remedial investigation and the feasibility study (RI/FS)** together generally take a minimum of two years to complete and, depending on factors such as the types of hazardous substances, soil formations, and number of parties involved, may take more than five years, and they can cost well in excess of $1 million. The EPA oversees the progress of the RI/FS, and completion is sometimes performed in stages.

Remedial Action Plan

.30 Once the RI/FS is complete, a program must be decided on for remediation of the site.

.31 In selecting a remediation program, the EPA first decides what cleanup standards are to be applied to the site. (The remedy selected must achieve cleanup standards, standards of control, and other environmental protection requirements, criteria, or limitations, known as **applicable or relevant and appropriate requirements (ARARs).**) It then identifies which remediation methods can achieve the standards. Finally, it is specified which of the alternative remediation methods is most cost-effective. Thus, the cleanup standards to be applied are not weighed against the cost of achieving those standards in the decision process.

Public Comment and Record of Decision

.32 The program is contained in a proposed remedial action plan (PRAP), which is made available to interested parties for public comment. After reviewing any public comments received, the EPA modifies the remedial plan, if necessary, and issues a record of decision (ROD), which specifies the remedy, as well as the time frame in which the remedy is to be implemented. The final ROD is part of a written **administrative record** documenting the basis of the EPA's remedy selection.

.33 The EPA reviews the effectiveness of the remedial action periodically and can require changes to the plan or additional measures. EPA reviews typically occur every five years (often more frequently in the early stages of the remediation) and may continue well beyond delisting of the site from the NPL.

Remedial Design

.34 Following issuance of the ROD, the site enters into the remedial design phase. This phase includes development of a complete site remediation plan, including engineering drawings and specifications for the site remediation.

Remedial Action

.35 This phase includes actual construction and implementation of the remedial design that results in site remediation as specified in the ROD.

.36 There is a general presumption that the technology specified in the ROD must be used at the site. But the EPA sometimes agrees to innovative approaches using alternative, unproven technologies because one of the objectives embodied in Superfund is the promotion of improvements in remediation technology.

Operation and Maintenance (Including Postremediation Monitoring)

.37 After Superfund site remedial action is completed, activities must be conducted at the site to ensure that the remedy is effective and operating properly. For example, after a system to pump and treat groundwater is constructed (remedial action), the system must be operated and maintained. In addition, the EPA may require postremediation monitoring. These operation and maintenance activities may continue for thirty years or longer.

Government Oversight

.38 Under Superfund, the President of the United States has broad freedom to respond to actual or threatened releases of hazardous substances;

threatened, not actual, releases are enough to give rise to authority to act. Authority to abate the risk of harm from even threatened releases lies at the heart of the statute. The President has delegated this authority principally to the EPA for land, groundwater, and surface water. Thus, the Superfund program is controlled by the EPA throughout each step of the remediation process. This is reflected in continued agency oversight as the Superfund project unfolds.

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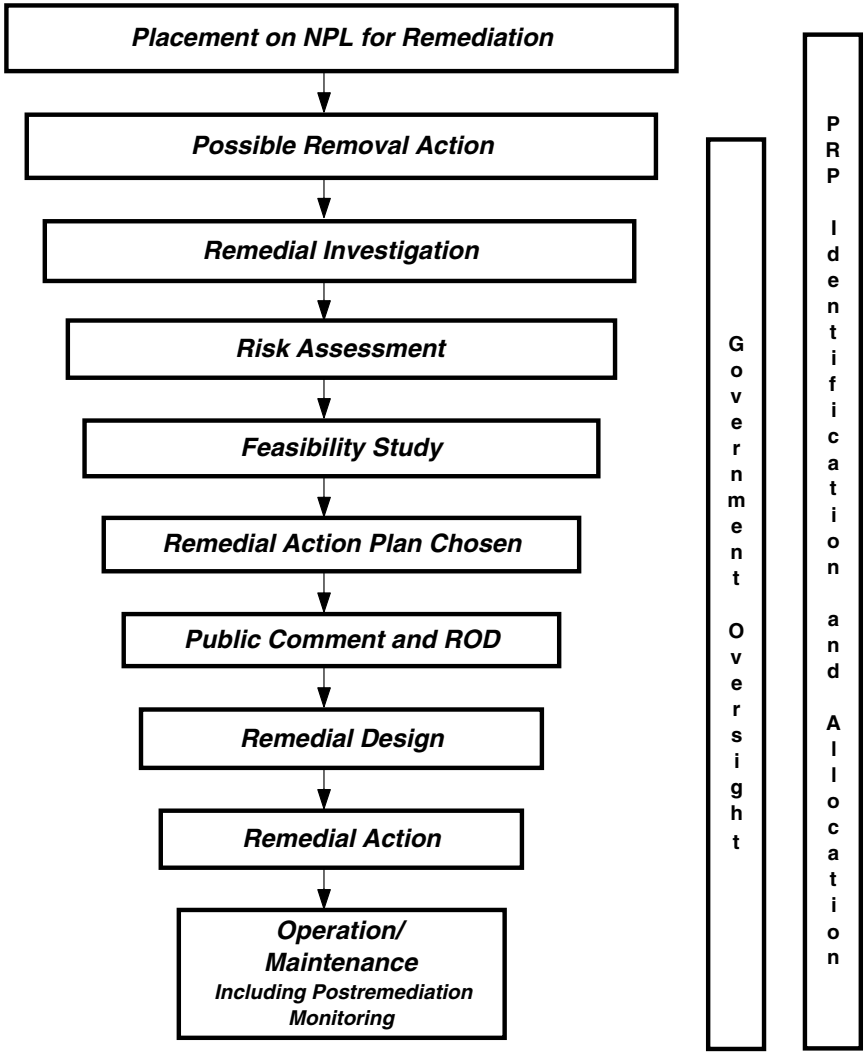
Figure 1

Sequence of a Typical Superfund Remediation Process



Potentially Responsible Parties Identification and Allocation

.40 The following is a discussion of the stages of PRP involvement in the Superfund remediation process. As depicted in figure 1 [paragraph .39], PRP identification and the allocation of costs among the PRPs is an ongoing process over the course of the remediation process; specific stages of PRP involvement do not necessarily correspond to specific stages of the remediation process.

Notification of Involvement

.41 A company may first learn of potential involvement in a Superfund site through the appearance of the site on a government list such as the NPL, in the CERCLIS database, or on a state priorities list. More often, an entity learns of involvement by receiving an information request [Section 104(e) Request] from the EPA regarding the wastes it may have sent to a designated site. But full-scale Superfund involvement usually begins when a company is notified by the EPA that it may be a PRP. The EPA may do this in several ways. It may—

- Issue a Notice Letter to all PRPs. A Notice Letter is the EPA's formal notice that Superfund-related action is to be undertaken at a site for which the PRP is considered potentially responsible.
- Issue a Special Notice Letter to PRPs stating that the government intends to initiate work at the site or issue an administrative order to force the PRPs to take response actions at the site unless the PRPs commit within a specified period (typically sixty to one-hundred twenty days) to take response actions.

  The Special Notice Letter provides the names and addresses of other targeted PRPs (to facilitate negotiations among the parties), and it may include a draft of a **consent decree** for each party to share in the costs or assume the responsibility for performing the RI/FS. The EPA also normally includes information about the nature of the material at the waste site and any knowledge it has obtained about the amount of waste contributed by each party.
- Summon all targeted PRPs to a meeting to discuss possible actions at a given site.

.42 Theoretically, the EPA should identify all of the PRPs and send each one of them a notice or summon them to a meeting. However, depending on the evidence it has collected to that point, the EPA may not be aware of all PRPs, leaving it up to the identified PRPs to perform an investigation to find others who may be liable and then file suits for cost recovery or contribution.

.43 PRPs are generally prohibited under Superfund from obtaining immediate judicial review of EPA decisions identifying them as liable or requiring them to take response actions; such review generally is available only after the EPA decides to bring an enforcement action for cost recovery, long after the remedy has been implemented.

Negotiations

.44 Once notified, the PRPs face the difficult task of organizing to negotiate with the government and perhaps assuming responsibility for carrying out the investigation or remedial work.[2, 3] Many PRPs consider it in their best in-

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[2] The negotiations do not require participation by all PRPs.

[3] A useful source of information is the *PRP Organization Handbook*, published by the Information Network for Superfund Settlements c/o Morgan, Lewis & Bockius, 1800 M Street, NW, Washington, DC 20036.

terests to assume such responsibility; if the PRPs are unable to reach an agreement among themselves, however, the EPA has the power to clean up the site and sue for full reimbursement of the costs. The sixty- to one-hundred-twenty-day period given with the Special Notice Letter is intended to give multiple PRPs sufficient time to organize and to make a good faith offer to the government to perform a specified activity.

.45 Negotiations often take place in stages. For example, PRPs may organize and agree to perform the RI/FS and to divide the costs among themselves in a particular way while continuing to negotiate how and whether to address the remediation itself.[4] Such preliminary cost-sharing agreements are often based on the volume of waste contributed to a site by each party (without regard to its relative toxicity), with an understanding that the allocation may be subsequently revised as additional information about the site becomes available.

.46 The process ultimately results in one of three outcomes:

a. Negotiated settlement among the parties. The parties and the EPA agree on who will clean up the site and how the cost sharing will take place. The EPA sometimes provides some assistance in this area through a *nonbinding allocation of responsibility*—a nonbinding judgment by the EPA as to who should be responsible for what share of the cost.

One or more minor participants may negotiate a de minimis settlement with the EPA in which they agree to pay their shares, usually with an agreement from the EPA that their liability is completed at the time of settlement. Such shares typically include some kind of premium over the contributors' "fair share." De minimis settlement nevertheless saves the contributor from incurring further legal fees, and it is the closest thing a PRP can get to a final cash settlement.

For the EPA to be receptive to a de minimis settlement, one of the following conditions must be met: (*a*) both the amount and the toxicity or hazardous properties of substances the PRP contributed are minimal in comparison to other hazardous substances at the site or (*b*) the PRP is a current or past owner of the site, did not allow generation, transportation, storage, treatment, or disposal of any hazardous substance at the site, did not contribute to the release or threat of release at the site, and did not purchase the property knowing that it was used for generation, transportation, storage, treatment, or disposal of any hazardous substances. Further, de minimis settlements typically occur only when a participant's "share" of the liability is less than one percent. Moreover, the EPA typically is unwilling to commit time and resources to negotiate with de minimis contributors individually. The de minimis settlement must take place as part of negotiations with the larger PRP group or with a separate group of de minimis contributors.

PRPs usually establish and contribute to a trust fund, from which an independent contractor is paid to do the RI/FS and remedial work. The contractor's work typically is overseen by a technical committee

[4] Some states, however, will not enter into agreements with PRPs concerning only stages of the remediation, such as the RI/FS; they require any agreement to cover the entire remediation effort.

of the contributing PRPs and either by a finance committee of those PRPs or by a management firm hired by the trust. PRPs seldom perform the RI/FS or remedial work themselves.

b. *Unilateral administrative order.* The EPA issues a unilateral administrative order under section 106 of CERCLA to compel a potentially responsible party (or parties) to clean up a site where there may be an "imminent and substantial endangerment" to human health or to the environment because of an actual or threatened release of a hazardous substance.

c. *Section 107.* The EPA remediates the site and seeks recovery of its costs from PRPs under section 107. To obtain reimbursement, the EPA issues letters to PRPs demanding payment for its response costs (costs of removal, remediation, and enforcement action). If these letters do not result in settlement, the EPA can seek reimbursement in the courts by referring the case to the Department of Justice.

Litigation

.47 PRPs that participate in the remediation can, and generally do, sue PRPs that did not participate in the remediation to recover costs, assuming those parties can be found and are solvent. Superfund expressly provides that any responsible party who pays Superfund response costs may sue other responsible parties to recover at least a part of such costs. In resolving such suits, courts are authorized by Superfund to apportion liability for response costs among responsible parties using "such equitable factors as the court determines are appropriate."

Natural Resource Damages Under Superfund

.48 There is a growing specter of liability for natural resource damages under the Superfund laws. CERCLA authorizes the recovery of damages for injury to, destruction of, or loss of natural resources, including reasonable costs for assessing such injury resulting from a release of a hazardous substance.

.49 Under CERCLA, natural resources are defined as land, fish, wildlife, biota, air, water, groundwater, drinking water supplies, and other such resources belonging to, managed or held in trust, or otherwise controlled by the United States, state or local governments, foreign governments, or Indian tribes.

.50 Natural resource damage claims include actual restoration costs and lost use values and may in the future include nonuse values, such as the intrinsic public value of protecting or restoring resources that may not be used but are valuable for their mere existence.

Reporting Releases Under Superfund Provisions

.51 Persons in charge of facilities must report releases of hazardous substances (spills) to the environment that exceed specified *reportable quantities.*

Remediation Provisions of the Resource Conservation and Recovery Act

.52 The RCRA of 1976, the pollution control provisions of which are discussed in chapter 3, provides for "cradle-to-grave" management standards

for hazardous wastes. Section 7003 of RCRA also authorizes the EPA to conduct removal actions, seek affirmative injunctive relief, and maintain cost-recovery actions where an imminent and substantial endangerment to the public health or welfare or to the environment is determined to exist. Much like under Superfund, one who has "contributed to" the disposal of waste that is causing an imminent and substantial endangerment can be required to perform or pay for associated remediation under section 7003.

.53 The 1984 Hazardous and Solid Waste Amendments to RCRA expanded owner-operator responsibility for environmental remediation liability associated with releases of hazardous wastes or hazardous waste constituents at hazardous waste **treatment, storage, or disposal facilities (TSDFs).** As amended, RCRA requires facilities—whether they continue operating or intend to close—to remedy any such releases. These corrective action provisions of RCRA, which are separate from Superfund, apply only to facilities that are operating under RCRA permits (see chapter 3) or that have applied for such permits.[5] However, because the EPA generally takes the position that the facility includes all the property that is adjacent or contiguous to the TSDF, permitting of a very small TSDF can subject a much larger, unrelated part of a property to RCRA's corrective action provisions, which apply "fencepost-to-fencepost."

.54 RCRA corrective action may be initiated either as part of the RCRA permitting process or through an interim status corrective action order. Corrective action for releases of hazardous waste or its constituents from **solid waste management units (SWMUs)**, whether they are on- or off-site, is a condition for obtaining any operating or postclosure RCRA permit. The EPA may also order corrective action while a TSDF is in interim status (before it receives its permit) based on information that there is or has been a release to the environment from the TSDF. The EPA does not need to demonstrate imminent and substantial endangerment to human health or the environment from a real or threatened release to issue an interim status corrective action order.

.55 The RCRA corrective action process, which is depicted in figure 2 in paragraph .59, is divided into the following five stages.

.56 *RCRA Facility Assessment.* The RCRA facility assessment (RFA) identifies areas and units at the facility from which hazardous waste or hazardous waste constituents may have been released and collects all existing information regarding the releases. The RFA may be conducted by the EPA or the EPA's contractors, or by the facility owner. There is no analogous stage in the Superfund remediation process.

.57 *RCRA Facility Investigation.* The RCRA facility investigation (RFI) is a detailed investigation to characterize releases to the environment by identifying the environmental setting, characterizing the sources of hazardous substances releases, identifying potential receptors, determining if remediation is necessary, and, if so, collecting data to support the evaluation of remediation alternatives. This stage is analogous to the Superfund remedial investigation stage.

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[5] Facilities that have not actively applied for a permit may be deemed to have a "permit by rule" if the owner/operator (1) holds a permit under another qualifying program and (2) complies with certain RCRA requirements specified for the owner/operator's situation. In addition, operating a facility in a manner that was subject to permit requirements, even if an application was not submitted, triggers RCRA permit obligations, including corrective action.

.58 *Interim Corrective Measures.* Interim corrective measures (ICM) are measures (typically containment) conducted at any time before selection of the final remedy by the environmental agency. This stage is analogous to a removal action under Superfund.

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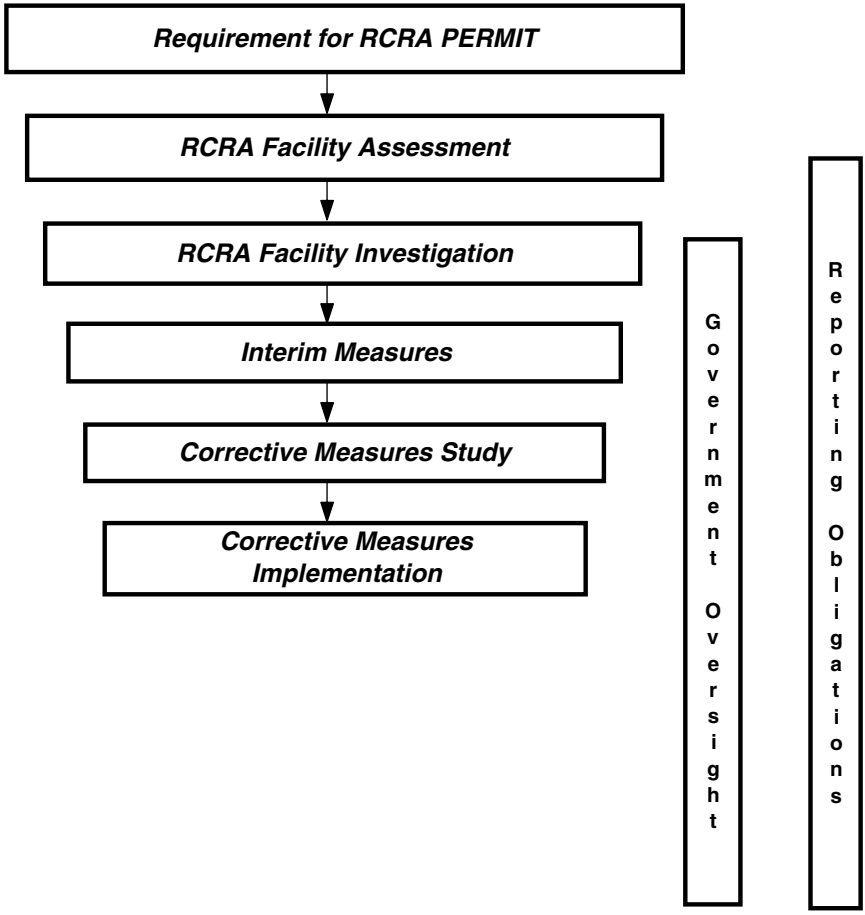
Figure 2

Sequence of RCRA Corrective Action Process



.60 *Corrective Measures Study.* If the RFI reveals a potential need for corrective measures, the agency requires the owner to perform a corrective measures study (CMS) to identify and recommend specific measures to correct the releases. The CMS assesses possible corrective measures in terms of technical feasibility, ability to protect public health and the environment, and possible adverse environmental effects of the corrective measures. Although analogous to the Superfund feasibility-study stage, this study is usually less complicated.

.61 *Corrective Measures Implementation.* This stage, corrective measures implementation (CMI), includes designing, constructing, operating, maintaining, and monitoring selected corrective measures that have been approved by the regulatory agency. This stage combines activities that are often segregated under Superfund as remedial design, remedial action, and operation and maintenance.

.62 *Owner/Operator Reporting and Government Oversight.* Beginning with the application for a RCRA permit, owner-operators are required to report to the EPA throughout the RCRA corrective action process, and the EPA oversees and controls each stage of the process.

.63 The 1984 amendments also created the Underground Storage Tank (UST) Program, which requires, among other things, that owners or operators of existing tank systems used for storage of petroleum and petroleum-based substances and certain other designated hazardous substances upgrade in accordance with standards specified by the EPA if those tank systems do not meet new tank standards. In addition, the 1984 amendments create an environmental remediation liability for known releases from USTs.

.64 RCRA regulations require financial assurance for closure and postclosure remediation of TSDFs and USTs.

State and Foreign Laws

.65 Many states have also enacted laws that are similar to the federal statutes. Furthermore, under certain federal statutes, such as RCRA, states are allowed to promulgate regulations to implement federal programs as long as the state law is at least as stringent as the federal law. In most such cases, states are free to enact more stringent provisions. Preparers and auditors of financial statements should also be aware that most developed countries and many other countries have enacted environmental laws, some of which may be similar to or more stringent than United States laws.

Chapter 3

POLLUTION CONTROL AND PREVENTION LAWS

The Resource Conservation and Recovery Act

.66 The Resource Conservation and Recovery Act (RCRA) provides comprehensive federal regulation of hazardous wastes from point of generation to final disposal. All generators of hazardous waste, transporters of hazardous waste, and owners and operators of hazardous waste treatment, storage, or disposal facilities (TSDFs) must comply with the applicable requirements of the statute.

.67 For generators of hazardous waste, those requirements include the following:

a. Hazardous waste determination

b. Manifest requirements

c. Packaging and labeling

d. Record keeping and annual reporting

e. Management standards

.68 Less stringent requirements under RCRA are imposed on certain small quantity generators (up to 1,000 kg of a waste per month).

.69 The key to RCRA compliance is the hazardous waste determination, in which the facility determines whether the material it handles is a hazardous waste. A step-by-step identification procedure is prescribed. Initially, one must determine whether the material is a "solid waste."[6] If so, one must determine whether that solid waste is hazardous. Some wastes that are specified by regulation are automatically deemed hazardous. These are the so-called "listed wastes." Other wastes must be evaluated to determine whether they exhibit any of four characteristics: toxicity, corrosivity, reactivity, or ignitability. If so, they, too, are deemed hazardous. Exclusions are provided for wastewaters regulated under the Clean Water Act and for certain types of reuse, recycling, and reclamation.

.70 With some exceptions, a waste generator that accumulates hazardous waste in excess of ninety days or treats the hazardous waste will be deemed the operator of a TSDF and be subject to the comprehensive TSDF regulations. These regulations require owners–operators to, among other things, obtain a permit.

.71 Each TSDF is also subject to specific requirements designed to prevent any release of hazardous waste into the environment and also may be required to perform groundwater monitoring to ensure proper compliance with TSDF regulations. These regulations require containers and tanks to be of sufficient integrity to contain hazardous wastes properly, and they require that, in certain cases, containers be separated or protected by dikes, berms, or walls. Surface impoundments, waste piles, and landfills must be equipped with liners to prevent any migration of wastes into soil, groundwater, or surface wa-

[6] Under RCRA, a "solid waste" may be either a solid, a liquid, or a gas.

ter during the active life of the facility and must be constructed to prevent runoff or breaks. Land treatment units that treat hazardous wastes biologically must ensure that hazardous wastes are degraded, transformed, or immobilized within the treatment zone and do not reach the underlying water table.

.72 RCRA also contains provisions for **closure** of TSDFs and financial assurance requirements for closure and postclosure obligations.

.73 RCRA also requires the United States Environmental Protection Agency (EPA) to regulate underground storage tanks (USTs). Most states have enacted their own UST regulations as well. A brief summary of the federal program is presented below.

.74 The UST regulations apply only to underground tank systems containing the following regulated substances:

a. Petroleum and petroleum-based substances[7]

b. Hazardous substances designated pursuant to section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

.75 The EPA's general performance standards rely heavily on detailed technical standards set forth in industry performance codes established by nationally recognized associations or independent testing laboratories.

.76 As a general rule, each new tank (or each existing tank upgraded to new tank standards) must be designed and constructed according to the standards of a nationally recognized organization or an independent testing laboratory. Like the tanks, the piping associated with a new UST system must be designed and constructed in accordance with industry codes. All tanks must also be equipped with spill and overfill prevention equipment. If existing tank systems do not currently meet the new tank standards, the owner or operator must upgrade them by December 22, 1998.

.77 As an alternative to installing new tanks or upgrading existing tanks, an owner or operator may choose to close some or all of its UST systems. The closure, however, must meet standards specified by the EPA. The regulations require that a closed tank be emptied and cleaned by removing all liquids and accumulated sludges. The tank must then be either removed from the ground or filled with an inert solid material.[8]

.78 The UST regulations also impose general operation and maintenance requirements on owners and operators of underground storage tank systems in the following five main areas: (*a*) spill and overfill control, (*b*) corrosion protection, (*c*) tank repair, (*d*) leak detection, and (*e*) record keeping. These regulations are designed to ensure that releases due to spilling, overfilling, corrosion, or poor maintenance do not occur. Record-keeping regulations require that records evidencing repairs, release detection systems, monitoring results, and corrosion and inspection reports be maintained at the plant or at a readily available alternative site.

.79 In addition, owners and operators must establish financial responsibility. The regulations specify several different methods of demonstrating fi-

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[7] Certain types of UST systems used for storing heating oil for consumptive use on the premises where stored are exempted.

[8] The regulations further require that the EPA or state agency be notified of the intent to close a tank system permanently at least thirty days before beginning the closure process.

nancial responsibility: self-insurance; guarantee; insurance or risk retention group; surety bond; letter of credit; trust funds; or state-provided financial assurance.

The Clean Air Act

.80 The Clean Air Act provides comprehensive federal regulation of all "sources" of air pollution. Under the Clean Air Act, every area of the United States is evaluated for its compliance with the National Primary and Secondary Ambient Air Quality Standards (NAAQS). In areas where the NAAQS have not been attained, new and significantly modified sources must use the most effective pollution control equipment available that results in the lowest achievable emissions rate (LAER). This determination is made without regard to cost. The permittee must also provide emissions offsets, or greater than one-to-one reduction, for any nonattainment pollutant that the source would emit in significant amounts. These offsets must be sufficient to provide a net air quality benefit in the affected area.

.81 In areas that have attained the NAAQS for particular pollutants, new or modified stationary sources that would emit these pollutants in significant amounts must obtain permits under the Prevention of Significant Deterioration (PSD) Program. Under the PSD program, a facility emitting air pollutants must apply the best available control technology (BACT). BACT is determined on a case-by-case basis, taking into account energy, environmental, and economic factors, and other costs and benefits of reduced air pollution.

.82 The Clean Air Act also contains new source performance standards (NSPS), which are applicable to stationary sources that are modified or built after the NSPS are proposed. The NSPS program is designed to ensure that new sources are built with state-of-the-art controls and that when existing sources are modified, new controls are installed. Each NSPS establishes design or performance criteria for a specific source. There are numerous specific industrial facilities and operations for which NSPS have been developed.

.83 Section 107(a) of the Clean Air Act directs that each state "shall have the primary responsibility for assuring air quality within the entire geographic area of such state." Toward that end, the EPA has developed regulations governing state implementation plans pursuant to which states assume Clean Air Act regulation of all facilities within their borders. The act also contains citizen suit provisions that augment government enforcement with citizen enforcement.

.84 Amendments to the Clean Air Act in the 1990s are designed to address issues such as acid rain, urban air pollution, toxic air pollutants, and ozone-depleting chemicals. The major provisions of the Clean Air Act amendments require emissions reduction in the electric utility industry, operating permits for existing facilities, an expansion of the air toxics program to regulate a large number of toxic air pollutants, and new source categories (including smaller sources, such as dry cleaners).

The Clean Water Act

.85 The Clean Water Act provides comprehensive federal regulation of all sources of water pollution. The primary means of obtaining national water quality is through the imposition of National Pollutant Discharge Elimination System (NPDES) permits on all facilities that discharge pollutants into the wa-

ters of the United States. The Clean Water Act also utilizes ambient water quality standards to set individual permit limitations and technology-based limitations that, in varying degrees, impose the most cost-effective pollution control technology on dischargers. These include effluent limitations utilizing specified technology, compliance with performance standards, use of specified practices for facility design and operation requirements, use of specified treatment or pretreatment methods, and detailed assessments and evaluations of the impact of proposed discharges. Although technology-based effluent limitations provide minimum discharge standards, the act also requires more stringent water-quality-based limitations to maintain or protect water quality in specific bodies of water.

.86 The Clean Water Act imposes standards on dischargers of conventional (less harmful), toxic (more harmful), and nonconventional pollutants requiring varying degrees of technology. As with the Clean Air Act, the Clean Water Act imposes more stringent standards on facilities whose construction or modification commenced after publication of applicable NSPS. In the promulgation of these standards, the EPA may consider incorporating alternative production processes, operating methods, and in-plant control procedures and other factors. Industrial facilities that discharge into publicly owned treatment works (POTWs) must also meet discharge standards, called pretreatment standards, designed to prevent pollutants from passing through treatment works without adequate treatment. The Clean Water Act also prohibits the discharge of pollutants from nonpermitted point sources. In addition, the EPA has issued regulations requiring permits for storm water discharges from industrial and municipal sources.

.87 The act authorizes cleanup, injunctive, and cost-recovery actions where an imminent hazard is caused by pollution. It also prohibits the discharge of oil and other hazardous substances to the navigable waters of the United States, imposes a criminal penalty for failure to notify the appropriate entity of such discharges, and provides for citizen suits.

.88 If a facility discharges pollutants into navigable waters pursuant to a Clean Water Act permit, it must file a discharge monitoring report (DMR) with the EPA or the appropriate state agency. The DMR gives notice to the authorities of any violations of the permit.

.89 The citizen suit provision of the Clean Water Act permits any citizen to, "commence a civil action . . . against any person . . . alleged to be in violation of an effluent standard or limitation under the Act." Numerous citizen groups have used the citizen suit provision to bring suits against companies based on violations reported in their DMRs.

.90 Most states have assumed enforcement of the act within their borders through state regulations that correspond to the federal regulations discussed above.

Chapter 4

OTHER ENVIRONMENTAL LAWS

.91 There are a variety of other statutes that relate to environmental matters. Two of the more significant ones, the Emergency Planning and Community Right-to-Know Act (EPCRA) and the Toxic Substances Control Act (TSCA), are discussed in this chapter.

The Emergency Planning and Community Right-to-Know Act

.92 EPCRA requires facilities that have certain quantities of *extremely hazardous substances* to notify their state emergency response commission that they are subject to the emergency planning requirements of the Superfund Amendments and Reauthorization Act of 1986 (SARA). They must also report releases to the local emergency planning committee.

.93 In addition, facilities that store chemicals over specified threshold amounts must submit material safety data sheets (MSDSs), or their equivalent, to the appropriate local emergency planning committee, the state emergency response commission, and the fire department with jurisdiction over the facility.

.94 Each facility subject to EPCRA reporting requirements must report the maximum amount of the hazardous chemical present at the facility and provide a description of the storage or use of the chemical and its location at the facility. This inventory report must be submitted to local and state emergency response officials annually.

.95 Section 313 of EPCRA also includes requirements for the annual reporting of releases of certain toxic chemicals that occur as a result of normal business operations (as distinguished from abnormal, emergency releases). Facilities subject to this reporting requirement are required to complete a Toxic Chemical Release Inventory Form (Form R) for specified chemicals. This form also includes source reduction and recycling information required under the Pollution Prevention Act of 1990. All the information described above is made available to the general public.

The Toxic Substances Control Act

.96 The TSCA regulates the manufacture, processing, and distribution in commerce of chemical substances and mixtures capable of adversely affecting health or the environment. The TSCA may require testing and may impose use restrictions, along with requirements for the reporting and retention of information on the risks of TSCA-regulated substances.

.97 The act requires that any person who manufactures, processes, or distributes in commerce a chemical substance or mixture and who obtains information that reasonably supports the conclusion that such substance or mixture presents a substantial risk of injury to health or the environment shall immediately inform the United States Environmental Protection Agency (EPA). The only excuse for not meeting this duty is actual knowledge that the EPA already has been adequately informed. The act also provides that any per-

son who manufactures, processes, or distributes in commerce any chemical substance or mixture shall maintain records of significant adverse reactions to health or the environment alleged to have been caused by the substance or mixture. Records of any adverse health reactions of employees must also be kept. In addition, records of other problems, including those stemming from consumer complaints and reports of occupational diseases or injuries to nonemployees or harm to the environment, must be maintained. Any person who manufactures, processes, or distributes in commerce a listed chemical under this section must submit to the EPA lists of health and safety studies conducted by the person, known to the person, or reasonably ascertainable. TSCA also requires notification of substantial risk to human health or the environment.

.98 Regulations promulgated under the TSCA also govern the manufacturing, processing, and distribution in commerce of polychlorinated biphenyls (PCBs) and asbestos. The PCB regulations contain stringent requirements for the labeling, disposal, storage, and incineration of PCBs and should be reviewed carefully if PCB transformers or other PCB articles are present at a facility. Under the asbestos rules, all persons who manufacture, import, or process asbestos must report quantity, use, and exposure information to the EPA.

Part 2

Accounting Guidance

.99 The objective of Part 2 is to provide accounting guidance with respect to environmental remediation liabilities that relate to pollution arising from some past act, generally as a result of the provisions of Superfund, the corrective-action provisions of the Resource Conservation and Recovery Act, or analogous state and non-United States laws and regulations. The recognition and measurement guidance in this Part should be applied on a site-by-site basis.

Scope

.100 The provisions of this SOP apply to all entities that prepare financial statements in conformity with generally accepted accounting principles applicable to nongovernmental entities.

.101 This SOP provides guidance on accounting for environmental remediation liabilities and is written in the context of operations taking place in the United States; however, the accounting guidance in this SOP is applicable to all the operations of the reporting entity. This SOP does not provide guidance on accounting for pollution control costs with respect to current operations or on accounting for costs of future site restoration or closure that are required upon the cessation of operations or sale of facilities, as such current and future costs and obligations represent a class of accounting issues different from environmental remediation liabilities.[9] This SOP also does not provide guidance on accounting for environmental remediation actions that are undertaken at the sole discretion of management and that are not induced by the threat, by governments or other parties, of litigation or of assertion of a claim or an assessment. Furthermore, this SOP does not provide guidance on recognizing liabilities of insurance companies for unpaid claims or address asset impairment issues.

Effective Date and Transition

.102 The provisions of this SOP are effective for fiscal years beginning after December 15, 1996. Earlier application is encouraged. Although the effect of initially applying the provisions of this SOP will, in individual cases, have elements of a change in accounting principle and of a change in accounting estimate, those elements often will be inseparable. Consequently, the entire effect of initially applying the provisions of this SOP shall be reported as a change in accounting estimate [Accounting Principles Board (APB) Opinion No. 20, *Accounting Changes,* paragraphs 31 through 33]. Restatement of previously issued financial statements is not permitted.

.103 The provisions of this SOP need not be applied to immaterial items.

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[9] On February 7, 1996, the Financial Accounting Standards Board (FASB) issued an exposure draft of a proposed Statement of Financial Accounting Standards, *Accounting for Certain Liabilities Related to Closure or Removal of Long-Lived Assets.* In June 2001, the FASB issued FASB Statement No. 143, *Accounting for Asset Retirement Obligations*. [Footnote revised, June 2004, to reflect conforming changes necessary due to the issuance of FASB Statement No. 143.]

Chapter 5

RECOGNITION OF ENVIRONMENTAL REMEDIATION LIABILITIES

.104 Recognition has to do with when amounts should be reported in financial statements. This chapter addresses that issue. Measurement, which has to do with the amounts to be reported in financial statements, is addressed in chapter 6. Issues with respect to both recognition and measurement of potential recoveries are addressed in chapter 6.

Overall Approach

.105 FASB Statement No. 5, *Accounting for Contingencies,* requires the accrual of a liability if (*a*) information available prior to issuance of the financial statements indicates that it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements and (*b*) the amount of the loss can be reasonably estimated.

.106 An entity's environmental remediation obligation that results in a liability generally does not become determinable as a distinct event, nor is the amount of the liability generally fixed and determinable at a specific point in time. Rather, the existence of a liability for environmental remediation costs becomes determinable and the amount of the liability becomes estimable over a continuum of events and activities that help to frame, define, and verify the liability.

.107 The underlying cause of an environmental remediation liability is the past or present ownership or operation of a site, or the contribution or transportation of waste to a site, at which remedial actions (at a minimum, investigation) must take place. For a liability to be recognized in the financial statements, this underlying cause must have occurred on or before the date of the financial statements.

Probability That a Liability Has Been Incurred

.108 In the context of environmental remediation liabilities, FASB Statement No. 5's probability criterion consists of two elements; the criterion is met if both of the following elements are met on or before the date the financial statements are issued:

- Litigation has commenced or a claim or an assessment has been asserted, or, based on available information, commencement of litigation or assertion of a claim or an assessment is probable. In other words, it has been asserted (or it is probable that it will be asserted) that the entity is responsible for participating in a remediation process because of a past event.
- Based on available information, it is probable that the outcome of such litigation, claim, or assessment will be unfavorable. In other words, an entity will be held responsible for participating in a remediation process because of the past event.

What constitutes commencement or probable commencement of litigation or assertion or probable assertion of a claim or an assessment in relation to particular environmental laws and regulations may require legal determination.

.109 Given the legal framework within which most environmental remediation liabilities arise,[10] AcSEC concluded that there is a presumption that, (*a*) if litigation has commenced or a claim or an assessment has been asserted or if commencement of litigation or assertion of a claim or assessment is probable and (*b*) if the reporting entity is associated with the site—that is, if it in fact arranged for the disposal of hazardous substances found at a site or transported hazardous substances to the site or is the current or previous owner or operator of the site—the outcome of such litigation, claim, or assessment will be unfavorable.

Ability to Reasonably Estimate the Liability

.110 Estimating environmental remediation liabilities involves an array of issues at any point in time. In the early stages of the process, cost estimates can be difficult to derive because of uncertainties about a variety of factors. For this reason, estimates developed in the early stages of remediation can vary significantly; in many cases, early estimates later require significant revision. The following are some of the factors that are integral to developing cost estimates:

- The extent and types of hazardous substances at a site
- The range of technologies that can be used for remediation
- Evolving standards of what constitutes acceptable remediation
- The number and financial condition of other potentially responsible parties (PRPs) and the extent of their responsibility for the remediation (that is, the extent and types of hazardous substances they contributed to the site)

.111 FASB Interpretation No. 14, *Reasonable Estimation of the Amount of a Loss,* concludes that the criterion for recognition of a loss contingency in paragraph 8(b) of FASB Statement No. 5—that "the amount of loss can be reasonably estimated"—is met when a range of loss can be reasonably estimated.

.112 At the early stages of the remediation process, environmental remediation liabilities are not easily quantified, due in part to the uncertainties noted previously. As a practical matter, the range of an estimated remediation liability will be defined and refined as events in the remediation process occur.

.113 An estimate of the range of an environmental remediation liability typically is derived by combining estimates of various components of the liability (such as the costs of performing particular tasks, or amounts allocable to other PRPs but that will not be paid by those other PRPs), which are themselves likely to be ranges. For some of those component ranges, there may be amounts that appear to be better estimates than any other amount within the range; for other component ranges, there may be no such best estimates.

[10] See the discussion of strict liability in the "Introduction" in paragraphs .03 through .10.

Accordingly, the overall liability that is recorded may be based on amounts representing the lower end of a range of costs for some components of the liability and best estimates within ranges of costs of other components of the liability.

.114 At the early stages of the remediation process, particular components of the overall liability may not be reasonably estimable. This fact should not preclude the recognition of a liability. Rather, the components of the liability that can be reasonably estimated should be viewed as a surrogate for the minimum in the range of the overall liability. For example, a sole PRP that has confirmed that it sent waste to a Superfund site and agrees to perform a remedial investigation and feasibility study (RI/FS) may know that it will incur costs related to the RI/FS. The PRP, although aware that the total costs associated with the site will be greater than the cost of the RI/FS, may be unable to reasonably estimate the overall liability because of existing uncertainties, for example, regarding the kinds and quantities of hazardous substances present at the site and the technologies available to remediate the site. This lack of ability to quantify the total costs of the remediation effort, however, should not preclude recognition of the estimated cost of the RI/FS. In this circumstance, a liability for the best estimate (or, if no best estimate is available, the minimum amount in the range) of the cost of the RI/FS and for any other component remediation costs that can be reasonably estimated, should be recognized in the entity's financial statements.

.115 Additional complexities arise if other PRPs are involved in an identified site. The costs associated with remediation of a site ultimately will be assigned and allocated among the various PRPs. The final allocation of costs may not be known, however, until the remediation effort is substantially complete, and it may or may not be based on an entity's relative direct responsibility at a site. An entity's final obligation depends, among other things, on the willingness of the entity and other PRPs to negotiate a cost allocation, the results of the entity's negotiation efforts, and the ability of other PRPs associated with the particular site to fund the remediation effort.

.116 Uncertainties relating to the entity's *share* of an environmental remediation liability should not preclude the entity from recognizing its best estimate of its share of the liability or, if no best estimate can be made, the minimum estimate of its share of the liability, if the liability is probable and the total remediation liability associated with the site is reasonably estimable within a range. (See the section entitled "Allocation of Liability Among Potentially Responsible Parties" in paragraphs .133 through .139.)

.117 Changes in estimates of the entity's remediation liability, including revisions to the entity's estimate of its share of the liability due to negotiation or identification of other PRPs, should be accounted for as changes in estimates, in consonance with APB Opinion No. 20, *Accounting Changes*.

Benchmarks

.118 Certain stages of a remediation effort or process and of PRP involvement (see chapter 2 for a discussion of these stages) provide benchmarks that should be considered when evaluating the probability that a loss has been incurred and the extent to which any loss is reasonably estimable. Benchmarks should not, however, be applied in a manner that would delay recognition beyond the point at which FASB Statement No. 5's recognition criteria are met.

.119 The following are recognition benchmarks for a Superfund remediation liability; analogous stages of the RCRA corrective-action process are also indicated. At a minimum, the estimate of a Superfund (or RCRA) remediation liability should be evaluated as each of these benchmarks occurs.

- *Identification and verification of an entity as a PRP.* The RCRA analogue is subjection to RCRA facility permit requirements. Receipt of notification or otherwise becoming aware that an entity may be a PRP compels the entity to action. The entity must examine its records to determine whether it is associated with the site.

  If, based on a review and evaluation of its records and all other available information, the entity determines that it is associated with the site, it is probable that a liability has been incurred. If all or a portion of the liability is reasonably estimable, the liability should be recognized.

  In some cases, an entity will be able to reasonably estimate a range of its liability very early in the process because the site situation is common or similar to situations at other sites with which the entity has been associated (for example, the remediation involves only the removal of underground storage tanks [USTs] in accordance with the UST program). In such cases, the criteria for recognition would be met and the liability should be recognized. In other cases, however, the entity may have insufficient information to reasonably estimate the minimum amount in the range of its liability. In these cases, the criteria for recognition would not be met at this time.

- *Receipt of unilateral administrative order.* The RCRA analogue is, generally, interim corrective measures. An entity may receive a unilateral administrative order compelling it to take a response action at a site or risk penalties of up to four times the cost of the response action. Such response actions may be relatively limited actions, such as the performance of a remedial investigation and feasibility study or performance of a removal action, or they may be broad actions such as remediating a site. Under section 106 of Superfund, the EPA must find that an "imminent and substantial endangerment" exists at the site before such an order may be issued. No preenforcement review by a court is authorized under Superfund if an entity elects to challenge a unilateral administrative order.

  The ability to estimate costs resulting from unilateral administrative orders varies with factors such as site complexity and the nature and extent of the work to be performed. The benchmarks that follow should be considered in evaluating the ability to estimate such costs insofar as the actions required by the unilateral administrative order involve these benchmarks. The cost of performing the requisite work generally is estimable within a range, and recognition of an environmental remediation liability for costs of removal actions generally should not be delayed beyond this point.

- *Participation, as a PRP, in the RI/FS.* The RCRA analogue is RCRA facility investigation. At this stage, the entity and possibly others have been identified as PRPs and have agreed to pay the costs of a study that will investigate the extent of the environmental impact of the release or threatened release of hazardous substances and identify site-remediation alternatives. Further, the total cost of the RI/FS generally is estimable within a reasonable range. In addition, the iden-

tification of other PRPs and their agreement to participate in funding the RI/FS typically provides a reasonable basis for determining the entity's allocable share of the cost of the RI/FS. At this stage, additional information may be available regarding the extent of environmental impact and possible remediation alternatives. This additional information, however, may or may not be sufficient to provide a basis for reasonable estimation of the total remediation liability. At a minimum, the entity should recognize its share of the estimated total cost of the RI/FS.

As the RI/FS proceeds, the entity's estimate of its share of the total cost of the RI/FS can be refined. Further, additional information may become available based on which the entity can refine its estimates of other components of the liability or begin to estimate other components. For example, an entity may be able to estimate the extent of environmental impact at a site and to identify existing alternative remediation technologies. An entity may also be able to identify better the extent of its involvement at the site relative to other PRPs; the universe of PRPs may be identified; negotiations among PRPs and with federal and state EPA representatives may occur; and information may be obtained that materially affects the agreed-upon method of remediation.

- *Completion of feasibility study.* The RCRA analogue is corrective measures study. At substantial completion of the feasibility study, both a minimum remediation liability and the entity's allocated share generally will be reasonably estimable.

  The feasibility study should be considered substantially complete no later than the point at which the PRPs recommend a proposed course of action to the EPA. If the entity had not previously concluded that it could reasonably estimate the remediation liability (the best estimate or, if no amount within an estimated range of loss was a better estimate than any other amount in the range, the minimum amount in the range), recognition should not be delayed beyond this point, even if uncertainties, for example, about allocations to individual PRPs and potential recoveries from third parties, remain.

- *Issuance of record of decision (ROD).* The RCRA analogue is approval of corrective measures study. At this point, the EPA has issued its determination specifying a preferred remedy. Normally, the entity and other PRPs have begun, or perhaps completed, negotiations, litigation (see the section, "Impact of Potential Recoveries" in paragraphs .140 and .141), or both for their allocated share of the remediation liability. Accordingly, the entity's estimate normally can be refined based on the specified preferred remedy and a preliminary allocation of the total remediation costs.

- *Remedial Design Through Operation and Maintenance, Including Postremediation Monitoring.* The RCRA analogue is corrective measures implementation. During the design phase of the remediation, engineers develop a better sense of the work to be done and are able to provide more precise estimates of the total remediation cost. Further information likely will become available at various points until the site is delisted, subject only to postremediation monitoring. The entity should continue to refine and recognize its best estimate of its final obligation as this additional information becomes available.

Chapter 6

MEASUREMENT OF ENVIRONMENTAL REMEDIATION LIABILITIES

.120 Measurement has to do with the amounts to be reported in financial statements. This chapter addresses that issue. Recognition, which has to do with when amounts should be reported in financial statements, is addressed in chapter 5.

Overall Approach

.121 Once an entity has determined that it is probable that an environmental remediation liability has been incurred, the entity should estimate that liability based on available information. (Also see the section entitled "Ability to Reasonably Estimate the Liability" in paragraphs .110 through .117.) The estimate of the liability includes the entity's—

a. Allocable share of the liability for a specific site.

b. Share of amounts related to the site that will not be paid by other potentially responsible parties (PRPs) or the government.

.122 Making the appropriate measurement of an entity's remediation liability involves the following issues:

- Costs that should be included in the measurement
- Whether the measurement should consider the effects of expected future events or developments, including discounting considerations
- How the measurement should be affected by the existence of other PRPs
- How the measurement should be affected by potential recoveries

.123 Two kinds of costs that may be involved in environmental remediation situations are not discussed in this chapter. These costs—natural resource damages and toxic torts—are identified in paragraphs .21 and .48 through .50 in chapter 2 of this SOP. Concepts and practices with respect to natural resource damages are still evolving, and third-party suits are too case-specific for general guidance. The accounting guidance with respect to litigation [FASB Statement No. 5, especially paragraphs 33 through 39] should be considered in accounting for and the disclosure of such costs.

Costs to Be Included

.124 The Accounting Standards Executive Committee (AcSEC) concluded that the costs to be included in the measurement are the following:

a. Incremental direct costs of the remediation effort

b. Costs of compensation and benefits for those employees who are expected to devote a significant amount of time directly to the remediation effort, to the extent of the time expected to be spent directly on the remediation effort

The remediation effort is considered on a site-by-site basis; it includes the following:

- Precleanup activities, such as the performance of a remedial investigation, risk assessment, or feasibility study and the preparation of a remedial action plan and remedial designs for a Superfund site, or the performance of a Resource Conservation and Recovery Act of 1976 (RCRA) facility assessment, RCRA facility investigation, or RCRA corrective measures studies
- Performance of remedial actions under Superfund, corrective actions under RCRA, and analogous actions under state and non-United States laws
- Government oversight and enforcement-related activities
- Operation and maintenance of the remedy, including required postremediation monitoring

.125 Examples of incremental direct costs of the remediation effort include the following:

- Fees to outside law firms for work related to determining the extent of remedial actions that are required, the type of remedial actions to be used, or the allocation of costs among PRPs
- Costs related to completing the remedial investigation/feasibility study (RI/FS)
- Fees to outside engineering and consulting firms for site investigations and the development of remedial action plans and remedial designs
- Costs of contractors performing remedial actions
- Government oversight costs and past costs; usually this is based on the cost incurred by the United States Environmental Protection Agency (EPA) or other governmental authority dealing with the site
- The cost of machinery and equipment that is dedicated to the remedial actions and that does not have an alternative use
- Assessments by a PRP group covering costs incurred by the group in dealing with a site
- Costs of operation and maintenance of the remedial action, including the costs of postremediation monitoring required by the remedial action plan

.126 Determining (*a*) the extent of remedial actions that are required, (*b*) the type of remedial actions to be used, and (*c*) the allocation of costs among PRPs is part of the remediation effort, and the costs of making such determinations, including legal costs, are to be included in the measurement of the remediation liability. The costs of services related to routine environmental compliance matters and litigation costs involved with potential recoveries are not part of the remediation effort. Litigation costs involved with potential recoveries should be charged to expense as incurred until realization of the claim for recovery is considered probable and an asset relating to the recovery is recognized, at which time any remaining such legal costs should be considered in the measurement of the recovery. The determination of what legal costs are for potential recoveries rather than for determining the allocation of costs among PRPs will depend on the specific facts and circumstances of each situation.

.127 Examples of employees who may devote a significant amount of time directly to the remediation effort include the following:

- The internal legal staff that is involved with the determination of the extent of remedial actions that are required, the type of remedial action to be used, and the allocation of costs among PRPs
- Technical employees who are involved with the remediation effort

Estimates of the compensation and benefits costs to be incurred for a specific site should be made in connection with the initial recording of the remediation liability and subsequently adjusted at each reporting date to reflect the current estimate of such costs to be incurred in the future.

Effect of Expected Future Events or Developments

.128 The time period necessary to remediate a particular site may extend several years, and the laws governing the remediation process and the technology available to complete the remedial action may change before the remedial action is complete. Additionally, the impact of inflation and productivity improvements can change the estimates of costs to be incurred.

.129 Existing authoritative accounting literature is inconsistent in the treatment of expected future events and developments in currently measuring assets and liabilities. AcSEC concluded that for purposes of measuring environmental remediation liabilities, the measurement should be based on enacted laws and adopted regulations and policies. No changes therein should be anticipated. The impact of changes in laws, regulations, and policies should be recognized when such changes are enacted or adopted.

.130 Remediation technology is changing constantly, and, in many cases, new technologies have resulted in modified costs for environmental remediation. The remedial action plan that is used to develop the estimate of the liability should be based on the methodology that is expected to be approved to complete the remediation effort. Once a methodology has been approved, that methodology and the technology available therefor should be the basis for estimating the liability until it is probable that there will be formal acceptance of a revised methodology.

.131 The measurement of environmental remediation liabilities should be based on the reporting entity's estimate of what it will cost to perform each of the elements of the remediation effort (determined in accordance with paragraphs .124, .126, .129, and .130) when those elements are expected to be performed. Although this approach is sometimes referred to in shorthand fashion as "considering inflation," it does not simply rely on an inflation index[11] and should take into account factors such as productivity improvements due to learning from experience with similar sites and similar remedial action plans. In situations in which it is not practicable to estimate inflation and such other factors because of uncertainty about the timing of expenditures, a current-cost estimate would be the minimum in the range of the liability to be recorded until such time as these cost effects can be reasonably estimated.

.132 The measurement of the liability, or of a component of the liability, may be discounted to reflect the time value of money if the aggregate amount of the liability or component and the amount and timing of cash payments for

[11] Cost estimates submitted to the EPA usually include a prescribed inflation factor.

the liability or component are fixed or reliably determinable. (Note that these criteria would not be met in situations in which paragraph .131 permits use of a current-cost estimate.) For this purpose, the amount of the liability or component is the reporting entity's allocable share of the undiscounted joint and several liability for the remediation effort or of a component of that liability. This conclusion is consistent with the guidance in the FASB Emerging Issues Task Force (EITF) Issue 93-5.[12] For entities that file with the Securities and Exchange Commission (SEC), the guidance in Staff Accounting Bulletin (SAB) No. 92 with respect to the discount rate to be used—a rate that will produce an amount at which the environmental liability theoretically could be settled in an arm's-length transaction with a third party and that should not exceed the interest rate on monetary assets that are essentially risk-free and have maturities comparable to that of the environmental liability—should be followed.

Allocation of Liability Among Potentially Responsible Parties

.133 The environmental remediation liability recorded by an entity should be based on that entity's estimate of its allocable share of the joint and several remediation liability. The estimation of an entity's allocable share of the joint and several remediation liability for a site requires an entity to (*a*) identify the PRPs for the site, (*b*) assess the likelihood that other PRPs will pay their full allocable share of the joint and several remediation liability, and (*c*) determine the percentage of the liability that will be allocated to the entity.

Identification of PRPs for a Site

.134 For purposes of estimating an entity's allocable share of the joint and several remediation liability for a site, those parties that are potentially responsible for paying the remediation liability belong to one of the following five PRP categories:

a. *Participating PRPs.* **Participating PRPs** acknowledge their potential involvement with respect to a site. Some may participate in the various administrative, negotiation, monitoring, and remediation activities related to the site. Others may adopt a passive stance and simply monitor the activities and decisions of the more involved PRPs. This passive stance could result from a variety of factors such as the entity's lack of experience, limited internal resources, or relative involvement at a site. This category of PRPs (both active and passive) is also referred to as *players.*

b. *Recalcitrant PRPs.* **Recalcitrant PRPs** adopt a recalcitrant attitude toward the entire remediation effort even though evidence exists

[12] In developing this and certain other guidance in this SOP, AcSEC considered the guidance in EITF Issue 93-5, *Accounting for Environmental Liabilities.* By incorporating the guidance in EITF Issue 93-5 into this SOP and subjecting that guidance to the due process afforded SOPs, including public comment, the conclusions in that EITF consensus are effectively superseded. That guidance, now incorporated in this SOP, occupies a higher position in the hierarchy of sources of generally accepted accounting principles (GAAP) set forth in Statement on Auditing Standards (SAS) No. 69, *The Meaning of* Present Fairly in Conformity With Generally Accepted Accounting Principles, than essentially the same guidance as it is presented in EITF Issue 93-5.

that points to their involvement at a site. Some may adopt this attitude out of ignorance of the law; others may do so in the hope that they will be considered a nuisance and therefore ignored. Typically, parties in this category must be sued in order to collect their allocable share of the remediation liability; however, it may be that it is not economical to bring such suits because the parties' assets are limited. This category of PRPs is also referred to as nonparticipating PRPs.

c. *Unproven PRPs.* **Unproven PRPs** have been identified as PRPs by the EPA but do not acknowledge their potential involvement because there is currently no substantive evidence to link them to the site. Some ultimately may be dropped from the PRP list because no substantive evidence is found to link them to the site. For others, substantive evidence eventually may be found that points to their liability. The presentation of that evidence to the entity would result in a reclassification of the party from this category of PRPs (sometimes referred to as "hiding in the weeds") to either the participating PRP or recalcitrant PRP category.

d. *Parties that have not yet been identified as PRPs.* At early stages of the remediation process, the list of PRPs may be limited to a handful of entities that either were significant contributors of waste to the site or were easy to identify, for example, because of their proximity to the site or because of labeled material found at the site. As further investigation of the site occurs and as remediation activities take place, additional PRPs may be identified. Once identified, the additional PRPs would be reclassified from this category to either the participating PRP or recalcitrant PRP category. The total number of parties in this category and their aggregate allocable share of the remediation liability varies by site and cannot be reliably determined prior to the specific identification of individual PRPs. This category of PRPs is sometimes referred to as **unknown PRPs.**

e. *Parties that are PRPs but cannot be located or have no assets.* Some of these parties may be identified by the EPA; others may be identified as the site is investigated or as the remediation is performed. However, no contributions will ever be made by these parties. This category of PRPs is sometimes referred to as the **orphan share.**

Over the duration of a remediation project, individual entities may move from one PRP category to another.

Allocation Process

.135 In estimating its allocable share of the joint and several remediation liability for a site, there is a rebuttable presumption that costs will be allocated only among participating PRPs, as that category exists at the date of issuance of the financial statements.

.136 There are numerous ways to allocate liabilities among PRPs. The four principal factors considered in a typical allocation process are the following:

a. *Elements of fair share.* Examples are the amount of waste based on volume; the amount of waste based on mass, type of waste, toxicity of waste; the length of time the site was used.

b. *Classification of PRP.* Examples are site owner, site operator, transporter of waste, generator of waste.

c. Limitations on payments. This characteristic includes any statutory or regulatory limitations on contributions that may be applicable to a PRP. For example, in the reauthorization of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), it has been proposed that the statute limit the contribution of a municipality to 10 percent of the total remediation liability, irrespective of the municipality's allocable share.

d. Degree of care. This refers to the degree of care exercised in selecting the site or in selecting a transporter.

.137 PRPs may reach an agreement among themselves as to the allocation method and percentages to be used, they may hire an allocation consultant whose conclusions may or may not be binding, or they may request a nonbinding allocation of responsibility from the EPA. The allocation method or percentages used may change as the remediation project moves forward. An agreement to reallocate the preliminarily allocated liability at the end of the remediation project may exist, or the allocation percentages may be adjusted during the project to reflect prior allocations that subsequently are agreed to have been inequitable.

.138 An entity should determine its allocable share of the joint and several remediation liability for a site based on its estimate of the allocation method and percentage that ultimately will be used for the entire remediation effort. The primary sources for this estimate should be the allocation method and percentages that (*a*) the PRPs have agreed to (whether that agreement applies to the entire remediation effort or to the costs incurred in the current phase of the remediation process), (*b*) has been assigned by a consultant, or (*c*) has been determined by the EPA. If the entity's estimate of the ultimate allocation method and percentage differs significantly from the method or percentage from these primary sources, the entity's estimate should be based on objective, verifiable information. Examples of objective, verifiable information include existing data about the kinds and quantities of waste at the site, experience with allocation approaches in comparable situations, reports of environmental specialists (internal or external), and internal data refuting EPA allegations about the entity's contribution of waste (kind, volume, and so forth) to the site.

.139 An entity should assess the likelihood that each PRP will pay its allocable share of the joint and several remediation liability. That assessment should be based primarily on the financial condition of the participating PRP. This assessment requires the entity to gain an understanding of the financial condition of the other participating PRPs and to update and monitor this information as the remediation progresses. The entity should include in its liability its share of amounts related to the site that will not be paid by other PRPs or the government.

Impact of Potential Recoveries

.140 Potential recoveries of amounts expended for environmental remediation are distinguishable from the allocation of costs subject to joint and several liability, which is discussed in the preceding section, "Allocation of Liability Among Potentially Responsible Parties," in paragraphs .133 through .139. Potential recoveries may be claimed from a number of different parties or sources, including insurers, PRPs other than participating PRPs (see the section

entitled "Identification of PRPs for a Site" in paragraph .134), and governmental or third-party funds. The amount of an environmental remediation liability should be determined independently from any potential claim for recovery, and an asset relating to the recovery should be recognized only when realization of the claim for recovery is deemed probable.[13] If the claim is the subject of litigation, a rebuttable presumption exists that realization of the claim is not probable.

.141 Fair value should be used to measure the amount of a potential recovery. The concept of fair value requires consideration of both transaction costs related to the receipt of the recovery (see paragraph .126) and the time value of money. However, the time value of money should not be considered in the determination of the recorded amount of a potential recovery if (*a*) the liability is not discounted and (*b*) the timing of the recovery is dependent on the timing of the payment of the liability. In most circumstances, the point in time at which a liability for environmental remediation is both probable and reasonably estimable will precede the point in time at which any related recovery is probable of realization.

[13] The term *probable* is used in this SOP with the specific technical meaning in FASB Statement No. 5, paragraph 3.

Chapter 7
DISPLAY AND DISCLOSURE

.142 This chapter addresses display and disclosure of environmental remediation-related matters in the context of financial statements prepared in conformity with GAAP. Entities subject to the rules and regulations of the SEC must also adhere to various SEC guidance that applies to environmental matters, particularly SAB No. 92; Regulation S-K Rules 101, 103, and 303; and Financial Reporting Release No. 36.

.143 Display issues are discussed in the context of: (*a*) the balance sheet and (*b*) the income statement. Disclosure issues are discussed in the context of: (*a*) accounting principles, (*b*) environmental remediation loss contingencies, (*c*) environmental remediation costs recognized currently, and (*d*) conclusions on loss contingencies and other matters. The disclosures discussed in these contexts are two-tiered: (*a*) disclosures that are required and (*b*) disclosures that are encouraged, but not required. This SOP does not discourage entities from disclosing additional information that they believe will further users' understanding of the entity's financial statements.

Balance Sheet Display

.144 An entity's balance sheet may include several assets that relate to an environmental remediation obligation. Among them are the following:

- Receivables from other PRPs that are not providing initial funding
- Anticipated recoveries from insurers
- Anticipated recoveries from prior owners as a result of indemnification agreements

.145 Chapter 6 addresses an entity's recognition and measurement of potential recoveries related to its environmental remediation liabilities (see the section entitled "Impact of Potential Recoveries" in paragraphs .140 through .141). FASB Interpretation No. 39, *Offsetting of Amounts Related to Certain Contracts,* addresses the issue of offsetting environmental liabilities and related recoveries in the balance sheet. FASB Interpretation No. 39 states that a right of setoff exists only when all of the following conditions are met.

- Each of *two* parties owes the other determinable amounts.
- The reporting party has the right to set off the amounts owed with the amount owed the other party.
- The reporting party intends to set off.
- The right of setoff is enforceable at law.

.146 A debtor that has a right of setoff that meets all of these conditions may offset the related asset and liability and report the net amount. It would be rare, if ever, that the facts and circumstances surrounding environmental remediation liabilities and related receivables and potential recoveries would meet all of these conditions.

Income Statement Display

.147 Recording an environmental remediation liability usually results in a corresponding charge to income, and the guidance herein with respect to the

income statement refers to such charges. In certain situations, such as those described in FASB EITF Issues 90-8 and 89-13 (see reprints of these EITF Issues in appendix A [paragraph .173]), it may be appropriate to capitalize environmental remediation costs. Also, in conjunction with the initial recording of a purchase business combination or the final estimate of a preacquisition contingency at the end of the allocation period following the guidance in FASB Statement No. 141, *Business Combinations*, the environmental remediation liability is considered in the determination and allocation of the purchase price.[*] By analogy to the accounting for a purchase business combination, the recording of an environmental remediation liability in conjunction with the acquisition of property would affect the amount recorded as an asset. Finally, the recording of the receipt of property as a contribution received following the guidance in FASB Statement No. 116, *Accounting for Contributions Received and Contributions Made,* should include the effect of any environmental remediation liability that is recorded in conjunction with the contribution. [Revised, June 2004, to reflect conforming changes necessary due to the issuance of FASB Statement No. 141.[†]]

.148 APB Opinion No. 30, *Reporting the Results of Operations*, as amended by FASB Statements No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, and No. 145, *Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections*, sets forth the criteria for reporting extraordinary items. The incurrence of environmental remediation obligations is not an event that is unusual in nature. As such, the related costs and recoveries do not meet the criteria for classification as extraordinary. [Revised, June 2004, to reflect conforming changes necessary due to the issuance of FASB Statements No. 144 and No. 145.]

.149 Furthermore, it is particularly difficult to substantiate the classification of environmental remediation costs as a component of nonoperating expenses. Because the events underlying the incurrence of the obligation relate to an entity's operations, remediation costs should be charged against operations. Although charging the costs of remediating past environmental impacts against current operations may appear debatable because of the time between the contribution or transportation of waste materials containing hazardous substances to a site and the subsequent incurrence of remediation costs, environmental remediation-related expenses have become a regular cost of conducting economic activity. Accordingly, environmental remediation-related expenses should be reported as a component of operating income in income statements that classify items as operating or nonoperating. Credits arising from recoveries of environmental losses from other parties should be reflected in the same income statement line. Any earnings on assets that are reflected on the entity's financial statements and are earmarked for funding its environmental liabilities should be reported as investment income.

.150 Environmental remediation-related expenses and related recoveries attributable to discontinued operations that were accounted for as such in accordance with APB Opinion No. 30, as amended by FASB Statements No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, and No. 145,

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[*] Effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 31, 2008, the guidance in FASB Statement No. 141 (revised 2007), *Business Combinations*, should be applied. [Footnote added, May 2008, due to the issuance of FASB Statement No. 141(R).]

[†] FASB Statement No. 141, *Business Combinations*, supersedes APB Opinion No. 16, *Business Combinations*. [Footnote renumbered due to the issuance of FASB Statement No. 141(R), May 2008.]

Rescission of FASB Statements No. 4, 44, and 64, Amendment to FASB Statement No. 13, and Technical Corrections, should be classified as discontinued operations. [Revised, June 2004, to reflect conforming changes necessary due to the issuance of FASB Statements No. 144 and No. 145.]

Disclosure of Accounting Principles

.151 APB Opinion No. 22, *Disclosure of Accounting Policies,* provides guidance regarding accounting principles that should be described in the accounting policies note to the financial statements. APB Opinion 22, paragraph 12, indicates that entities should disclose those accounting principles that "materially affect the determination of financial position or results of operations." Particularly, entities should disclose accounting principles and the methods of applying those principles where alternatives exist.

.152 With respect to environmental remediation obligations, financial statements should disclose whether the accrual for environmental remediation liabilities is measured on a discounted basis. If an entity utilizes present-value measurement techniques, additional disclosures are appropriate, and are discussed further in the section entitled "Recognized Losses and Recoveries of Losses, and Reasonably Possible Loss Exposures" in paragraphs .160 through .164.

.153 Because environmental remediation costs have become increasingly significant, and because the accounting for many environmental loss contingencies often involves subjective judgments, disclosure of accrual benchmarks for remediation obligations is useful to further users' understanding of the entity's financial statements. Accordingly, entities are encouraged, but not required, to disclose the event, situation, or set of circumstances that generally triggers recognition of loss contingencies that arise out of the entity's environmental remediation-related obligations (for example, during or upon completion of the feasibility study).[14] Also, entities are encouraged to disclose their policy concerning the timing of recognition of recoveries.

.154 An illustration of an accounting policies note disclosure for environmental remediation-related costs follows (information that is italicized and enclosed in brackets is not required):

> *Environmental Remediation Costs—[Enterprise A accrues for losses associated with environmental remediation obligations when such losses are probable and reasonably estimable. Accruals for estimated losses from environmental remediation obligations generally are recognized no later than completion of the remedial feasibility study.*
>
> *Such accruals are adjusted as further information develops or circumstances change.]* Costs of future expenditures for environmental remediation obligations are not discounted to their present value. *[Recoveries of environmental remediation costs from other parties are recorded as assets when their receipt is deemed probable.]*

Disclosures for Environmental Remediation Loss Contingencies

.155 FASB Statement No. 5 provides the primary guidance applicable to disclosures of environmental remediation loss contingencies. Paragraphs 9 and 10 of FASB Statement No. 5 state:

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[14] An accrual benchmark cannot operate in a manner that would delay the accrual of a loss contingency beyond the point required by the provisions of FASB Statement No. 5, *Accounting for Contingencies.*

9. Disclosure of the nature of an accrual made pursuant to the provisions of paragraph 8 [of Statement No. 5], and in some circumstances the amount accrued, may be necessary for the financial statements not to be misleading.

10. If no accrual is made for a loss contingency because one or both of the conditions in paragraph 8 are not met, or if an exposure to loss exists in excess of the amount accrued pursuant to the provisions of paragraph 8, disclosure of the contingency shall be made when there is at least a reasonable possibility that a loss or an additional loss may have been incurred. The disclosure shall indicate the nature of the contingency and shall give an estimate of the possible loss or range of loss or state that such an estimate cannot be made. Disclosure is not required of a loss contingency involving an unasserted claim or assessment when there has been no manifestation by a potential claimant of an awareness of a possible claim or assessment unless it is considered probable that a claim will be asserted and there is a reasonable possibility that the outcome will be unfavorable. [*footnotes omitted*]

.156 The disclosure requirements of SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties* [section 10,640], also apply to environmental remediation liabilities. SOP 94-6, paragraphs 12 through 14 [section 10,640.12 through .14] state in part:

12. In addition to disclosures required by FASB Statement No. 5 and other accounting pronouncements, this SOP requires disclosures regarding estimates used in the determination of the carrying amounts of assets or liabilities or disclosure of gain or loss contingencies, as described below.

13. Disclosure regarding an estimate should be made when known information available prior to issuance of the financial statements indicates that *both* of the following criteria are met:

- It is at least reasonably possible that the estimate of the effect on the financial statements of a condition, situation, or set of circumstances that existed at the date of the financial statements will change in the near term due to one or more future confirming events.
- The effect of the change would be material to the financial statements.

14. The disclosure should indicate the nature of the uncertainty and include an indication that it is at least reasonably possible that a change in the estimate will occur in the near term. If the estimate involves a loss contingency covered by FASB Statement No. 5, the disclosure should also include an estimate of the possible loss or range of loss or state that such an estimate cannot be made. Disclosure of the factors that cause the estimate to be sensitive to change is encouraged but not required.

.157 This SOP incorporates the disclosure requirements set forth in EITF Issue 93-5 concerning discounting of environmental remediation liabilities and of assets that are recognized relating to recovery of a portion or all of such a liability.

.158 Uncertainties associated with environmental remediation loss contingencies are pervasive, and they often result in wide ranges of reasonably possible losses with respect to such contingencies. Further, resolution of the uncertainties and the cash-flow effects of the loss contingencies often occur over a span of many years. Accordingly, this SOP encourages, but does not require, additional specific disclosures[15] with respect to environmental remediation loss contingencies that would be useful to further users' understanding of the entity's financial statements.

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[15] Nothing in this SOP eliminates disclosures that are required by FASB Statement No. 5 or SOP 94-6 [section 10,640].

.159 Paragraphs 9 and 10 of FASB Statement No. 5 provide for disclosures related to three different aspects of loss contingencies: (*a*) recognized losses and reasonably possible (additional) loss exposures, (*b*) probable but not reasonably estimable losses, and (*c*) unasserted claims. Following are the disclosures that are required or encouraged by Statement No. 5, SOP 94-6 [section 10,640], and this SOP for each aspect.

Recognized Losses and Recoveries of Losses, and Reasonably Possible Loss Exposures

.160 If the FASB Statement No. 5 criteria of remote, reasonably possible, and probable were mapped onto a range of likelihood of the existence of a loss spanning from zero to 100 percent, the reasonably possible portion would span a significant breadth of the range starting from remote and ending with probable. The potential outcomes of environmental remediation loss contingencies often span a range of possibilities. If a loss is deemed probable and it is reasonably estimable, it is recognized; however, beyond the recognized losses, there may be additional exposure to loss that is reasonably possible. This often happens in situations in which a range of possible outcomes is identified and, in accordance with FASB Interpretation No. 14, the entity records either a best estimate within the range or the minimum amount in the range, thus leaving unrecorded amounts of additional possible loss for the higher cost outcomes.[16] In other situations, no loss may be probable, but a loss is reasonably possible. There may also be situations where a loss is probable, but no amount that would be material to the entity is reasonably estimable (see the subsequent section entitled "Probable But Not Reasonably Estimable Losses" in paragraphs .165 through .167).

.161 With respect to recorded accruals for environmental remediation loss contingencies and assets for third-party recoveries related to environmental remediation obligations, financial statements should disclose the following:

a. The nature of the accruals, if such disclosure is necessary for the financial statements not to be misleading, and, in situations where disclosure of the nature of the accruals is necessary, the total amount accrued for the remediation obligation, if such disclosure is also necessary for the financial statements not to be misleading

b. If any portion of the accrued obligation is discounted, the undiscounted amount of the obligation and the discount rate used in the present-value determinations

c. If the criteria of SOP 94-6 [section 10,640] are met with respect to the accrued obligation or to any recognized asset for third-party recoveries, an indication that it is at least reasonably possible that a change in the estimate of the obligation or of the asset will occur in the near term

.162 With respect to reasonably possible loss contingencies, including reasonably possible loss exposures in excess of the amount accrued, financial statements should disclose the following:

a. The nature of the reasonably possible loss contingency, that is, a description of the reasonably possible remediation obligation, and an estimate of the possible loss exposure or the fact that such an estimate cannot be made

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[16] When an overall liability is estimated by combining estimates of various components of the liability, additional possible losses present in the component estimates must be considered in determining an overall additional possible loss.

b. If the criteria of SOP 94-6 [section 10,640] are met with respect to estimated loss (or gain) contingencies, an indication that it is at least reasonably possible that a change in the estimate will occur in the near term

.163 Entities also are encouraged, but not required, to disclose the following:

a. The estimated time frame of disbursements for recorded amounts if expenditures are expected to continue over the long term

b. The estimated time frame for realization of recognized probable recoveries, if realization is not expected in the near term

c. If the criteria of SOP 94-6 [section 10,640] are met with respect to the accrued obligation, to any recognized asset for third-party recoveries, or to reasonably possible loss exposures or disclosed gain contingencies, the factors that cause the estimate to be sensitive to change

d. If an estimate of the probable or reasonably possible loss or range of loss cannot be made, the reasons why it cannot be made

e. If information about the reasonably possible loss or the recognized and additional reasonably possible loss for an environmental remediation obligation related to an individual site is relevant to an understanding of the financial position, cash flows, or results of operations of the entity, the following with respect to the site:

- The total amount accrued for the site
- The nature of any reasonably possible loss contingency or additional loss, and an estimate of the possible loss or the fact that an estimate cannot be made and the reasons why it cannot be made
- Whether other PRPs are involved and the entity's estimated share of the obligation
- The status of regulatory proceedings
- The estimated time frame for resolution of the contingency

.164 The following is an illustration of disclosure for a situation in which—

a. An entity is involved in a single environmental site at which a number of potential outcomes may occur.

b. There is a probable, reasonably estimable recovery from a third party.

c. The entity has accrued for the most likely outcome within a range of possible outcomes for each component.

d. The nature of the amounts accrued for remediation and the related probable recovery are necessary to be disclosed in order for the financial statements not to be misleading.

e. There is a reasonably possible loss exposure in excess of the amount accrued that is material and it is reasonably possible that a change in estimate that would be material to the financial statements will occur in the near term.

Information that is not required is italicized and enclosed in brackets.

> Enterprise A has been notified by the United States Environmental Protection Agency (EPA) that it is a potentially responsible party (PRP) under Superfund

legislation [*with respect to XYZ site in Sometown, USA, a disposal site previously used in its chemical-fertilizer business. The EPA has also identified ten other PRPs for XYZ. A remedial investigation and feasibility study has been completed, and the results of that study have been forwarded to the EPA. The study indicates a range of viable remedial approaches, but agreement has not yet been reached with the EPA on the final remediation approach. The PRP group has preliminarily agreed to an allocation that sets Enterprise A's share of the cost of remediating XYZ site at 6 percent.*] Enterprise A has accrued its best estimate of its obligation with respect to the site at December 31, 199X, [*which is $10 million and which is included in long-term liabilities and is expected to be disbursed over the next ten years. If certain of the PRPs are ultimately not able to fund their allocated shares or the EPA insists on a more expensive remediation approach,*] Enterprise A could incur additional obligations of up to $7 million. It is reasonably possible that Enterprise A's recorded estimate of its obligation may change in the near term.

With respect to the environmental obligation discussed above, the site was acquired in 1982, and, in connection with that acquisition, the former owner partially indemnified Enterprise A for environmental impacts occurring prior to the acquisition. [*Based on existing documentation indicating the years in which the business shipped wastes to XYZ and the terms of the indemnification in the acquisition agreement,*] Enterprise A [*believes it is probable that it will recover from the prior owners 50 percent of its allocated remediation costs for XYZ and, accordingly,*] has recorded a receivable of $5 million at December 31, 199X.

Probable But Not Reasonably Estimable Losses

.165 An entity often is able to determine early in the remediation process that it is probable it has an obligation, even though the determination of a reasonable estimate of the total cost of that obligation may take additional time (for example, due to the necessity of organizing a PRP group, studying and evaluating the site, or negotiating the scope of the remediation required with the regulatory authorities and other constituencies). In situations in which a probable obligation exists, FASB Statement No. 5 and Interpretation No. 14 require that the best estimate of the loss be recorded or, if the reasonable estimate of the loss is a range and there is no best estimate within the range, that the minimum amount in the range be recorded. However, it may be that there is no best estimate and the minimum amount in the range of the overall liability is not a material amount.

.166 Even though an entity may not be able to establish a reasonable estimate of a material loss or a range of reasonably estimable material loss exposure that must be recorded, in many cases it can determine early in the investigation whether the costs of environmental remediation, in fact, may be material (that is, the upper end of the range of the reasonable estimate of the loss is material). If an entity's probable but not reasonably estimable environmental remediation obligations may be material, the financial statements should disclose the nature of the probable contingency, that is, a description of the remediation obligation, and the fact that a reasonable estimate cannot currently be made. Entities also are encouraged, but not required, to disclose the estimated time frame for resolution of the uncertainty as to the amount of the loss.

.167 An illustration of disclosure of a probable but not yet reasonably estimable environmental remediation loss contingency follows (information that is italicized and enclosed in brackets is not required):

Enterprise A has been notified by the U.S. Environmental Protection Agency (EPA) that it is a potentially responsible party (PRP) with respect to environmental impacts [*identified at the XYZ site in Sometown, USA. Several meetings have been held with the EPA and the other identified PRPs, and a remedial investigation has recently commenced*.] Although a loss is probable, it is not possible at this time to reasonably estimate the amount of any obligation for remediation [*of XYZ site*] that would be material to Enterprise A's financial statements [*because the extent of environmental impact, allocation among the PRPs, remediation alternatives (which could involve no or minimal efforts), and concurrence of the regulatory authorities have not yet advanced to the stage where a reasonable estimate of any loss that would be material to the enterprise can be made*]. [*A reasonable estimate of a material obligation, if any, is expected to be possible in 199X.*]

Unasserted Claims

.168 Whether notification by regulatory authorities in relation to particular environmental laws and regulations constitutes the assertion of a claim is a matter of legal determination. If an entity concludes that it has no current legal obligation to remediate a situation of probable or possible environmental impact, then in accordance with paragraph 10 of FASB Statement No. 5, no disclosure is required. Similarly, future actions of an entity, when they occur, may create a legal obligation to perform environmental remediation; however, no obligation exists currently (for example, if the obligation arises only when and if an entity ceases to operate a facility).[17] However, if an entity is required by existing laws and regulations to report the release of hazardous substances and to begin a remediation study or if assertion of a claim is deemed probable, the matter would represent a loss contingency subject to the disclosure provisions of Statement No. 5, paragraph 10, regardless of a lack of involvement by a regulatory agency.

Other Considerations

.169 For SEC registrants, other financial statement disclosure considerations related to environmental loss exposures are set forth in the SEC's SAB No. 92, Topic 5-Y, Question 5 (see reprint of SAB No. 92 in appendix A [paragraph .173]). Also, Question 7 of the SAB discusses disclosures for site-restoration costs or other environmental exit costs.

Environmental Remediation Costs Recognized Currently

.170 Entities are encouraged but not required to disclose the amount of environmental remediation costs recognized in the income statement in the following detail:

- The amount recognized for environmental remediation loss contingencies in each period
- The amount of any recovery from third parties that is credited to environmental remediation costs in each period

[17] This SOP does not provide guidance on accounting for pollution control costs with respect to current operations or on accounting for costs of future site restoration or closure that are required upon the cessation of operations or sale of facilities.

- The income statement caption in which environmental remediation costs and credits are included

Conclusions on Loss Contingencies and Other Matters

.171 Financial statements may include a *contingency conclusion* that addresses the estimated total unrecognized exposure to environmental remediation and other loss contingencies. Such contingency conclusions may state, for example, that "management believes that the outcome of these uncertainties should not have (or "may have") a material adverse effect on the financial condition, cash flows, or operating results of the enterprise." Alternatively, the disclosure may indicate that the adverse effect could be material to a particular financial statement or to results and cash flows of a quarterly or annual reporting period. Although potentially useful information, these conclusions are not a substitute for the required disclosures of this SOP and of FASB Statement No. 5, such as their requirement to disclose the amounts of material reasonably possible additional losses or to state that such an estimate cannot be made. Also, the assertion that the outcome should not have a material adverse effect must be supportable. If the entity is unable to estimate the maximum end of the range of possible outcomes, it may be difficult to support an assertion that the outcome should not have a material adverse effect.

.172 Entities may wish to provide a description of the general applicability and impact of environmental laws and regulations upon their business and how the existence of such laws and regulations may give rise to loss contingencies for future environmental remediation. Such disclosures often acknowledge the uncertainty of the effect of possible future changes to environmental laws and their application, and they are frequently made on an aggregated basis, considering the entity's total exposures for all its environmental sites.

Appendix A

Current Authoritative Literature

FASB Statement No. 5, *Accounting for Contingencies,* and FASB Interpretation No. 14, *Reasonable Estimation of the Amount of a Loss—An Interpretation of FASB Statement No. 5*

A-1. FASB Statement No. 5, *Accounting for Contingencies,* states in paragraph 8 that—

> An estimated loss from a loss contingency [*paragraph reference omitted*] shall be accrued by a charge to income [*footnote omitted*] if both of the following conditions are met:
>
> *a.* Information available prior to issuance of the financial statements indicates that it is probable that an asset had been impaired or a liability had been incurred at the date of the financial statements. It is implicit in this condition that it must be probable that one or more future events will occur confirming the fact of the loss.
>
> *b.* The amount of loss can be reasonably estimated.

A-2. Although environmental remediation liabilities is not one of the examples discussed in FASB Statement No. 5, environmental remediation liabilities are loss contingencies, and the discussion in paragraphs 33 through 39 of "litigation, claims, and assessments" can be useful in understanding the requirements of FASB Statement No. 5 as they relate to environmental remediation liabilities.

A-3. FASB Interpretation No. 14, *Reasonable Estimation of the Amount of a Loss,* points out in paragraph 2 that the condition in FASB Statement No. 5 that "the amount of loss can be reasonably estimated" does not delay accrual of a loss until only a single amount can be reasonably estimated.

A-4. Paragraph 3 of the Interpretation provides the following guidance concerning accrual of loss contingencies when the reasonable estimate of the loss is a range of amounts.

- When some amount within the range appears at the time to be a better estimate than any other amount within the range, that amount (the best estimate) shall be accrued.
- When no amount within the range is a better estimate than any other amount (within the range), however, the minimum amount in the range shall be accrued.

A-5. Paragraphs 9 and 10 of FASB Statement No. 5 state the following.

> 9. Disclosure of the nature of an accrual [*footnote omitted*] made pursuant to the provisions of paragraph 8, and in some circumstances the amount accrued, may be necessary for the financial statements not to be misleading.
>
> 10. If no accrual is made for a loss contingency because one or both of the conditions in paragraph 8 are not met, or if an exposure to loss exists in excess of the amount accrued pursuant to the provisions of paragraph 8, disclosure of the contingency shall be made when there is at least a reasonable possibility

that a loss or an additional loss may have been incurred.[6] The disclosure shall indicate the nature of the contingency and shall give an estimate of the possible loss or range of loss or state that such an estimate cannot be made. Disclosure is not required of a loss contingency involving an unasserted claim or assessment when there has been no manifestation by a potential claimant of an awareness of a possible claim or assessment unless it is considered probable that a claim will be asserted and there is a reasonable possibility that the outcome will be unfavorable.

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[6] For example, disclosure shall be made of any loss contingency that meets the condition in paragraph 8(a) but that is not accrued because the amount of the loss can not be reasonably estimated (paragraph 8(b)). Disclosure is also required of some loss contingencies that do not meet the condition in paragraph 8(a)—namely, those contingencies for which there is a *reasonable possibility* that a loss may have been incurred even though information may not indicate that it is *probable* that an asset has been impaired or a liability has been incurred at the date of the financial statements.

The disclosure requirements of FASB Statement No. 5 are emphasized in FASB Interpretation No. 14.

FASB Interpretation No. 39, *Offsetting of Amounts Related to Certain Contracts*

A-6. FASB Interpretation No. 39, *Offsetting of Amounts Related to Certain Contracts,* defines a *right of setoff* as

> a debtor's legal right, by contract or otherwise, to discharge all or a portion of the debt owed to another party by applying against the debt an amount that the other party owes to the debtor. [*footnote omitted*] A right of setoff exists when all of the following conditions are met:
>
> *a.* Each of *two* parties owes the other determinable amounts.
>
> *b.* The reporting party has the right to set off the amount owed with the amount owed by the other party.
>
> *c.* The reporting party intends to set off.
>
> *d.* The right of setoff is enforceable at law.
>
> A debtor having a valid right of setoff may offset the related asset and liability and report the net amount. [*footnote omitted*]

APB Opinion 20, *Accounting Changes*

A-7. APB Opinion No. 20, *Accounting Changes,* states in paragraph 31 that

> the effect of a change in accounting estimate should be accounted for in (*a*) the period of change if the change affects that period only or (*b*) the period of change and future periods if the change affects both. A change in an estimate should not be accounted for by restating amounts reported in financial statements of prior periods or by reporting pro forma amounts for prior periods.

A-8. APB Opinion No. 20, paragraph 32, states in part:

> A change in accounting estimate that is recognized in whole or in part by a change in accounting principle should be reported as a change in an estimate because the cumulative effect attributable to the change in accounting principle cannot be separated from the current or future effects of the change in estimate . . . .

A-9. APB Opinion No. 20, paragraph 33, also requires or recommends, depending on the estimates involved, disclosure of the effect of significant revisions of estimates if the effect is material.

AICPA SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties*

A-10. SOP 94-6, *Disclosure of Certain Significant Risks and Uncertainties* [section 10,640], requires disclosure regarding an estimate when known information available prior to issuance of the financial statements indicates that *both* of the following criteria are met:

- It is at least reasonably possible that the estimate of the effect on the financial statements of a condition, situation, or set of circumstances that existed at the date of the financial statements will change in the near term due to one or more future confirming events.
- The effect of the change would be material to the financial statements.

A-11. The disclosure should indicate the nature of the uncertainty and include an indication that it is at least reasonably possible that a material change in the estimate will occur in the near term. If the estimate involves a loss contingency covered by FASB Statement No. 5, the disclosure should also include an estimate of the possible loss or range of loss or state that such an estimate cannot be made. Disclosure of the factors that cause the estimate to be sensitive to material change is encouraged but not required.

EITF Issue 93-5, *Accounting for Environmental Liabilities*

A-12. The guidance in FASB EITF Issue 93-5, *Accounting for Environmental Liabilities,* has been incorporated into this SOP. Therefore, EITF Issue 93-5 is not reproduced herein.

EITF Issue 90-8, *Capitalization of Costs to Treat Environmental Contamination*

A-13. EITF Issue 90-8, *Capitalization of Costs to Treat Environmental Contamination,* addresses whether "environmental contamination treatment costs" should be capitalized or charged to expense. Issue 90-8 is reprinted below in its entirety.

Dates Discussed: May 31, 1990; July 12, 1990

Reference: FASB Concepts Statement No. 6, *Elements of Financial Statements*

ISSUE

A company incurs costs to remove, contain, neutralize, or prevent existing or future environmental contamination (environmental contamination treatment costs). These costs may be incurred voluntarily or as required by law. They may include a wide range of expenditures, including costs of removal of contamination, such as that caused by leakage from underground storage tanks, costs to acquire tangible property, such as air pollution control equipment, costs of environmental studies, and costs of fines levied under environmental laws.

This Issue does not address (1) when to recognize liabilities related to environmental contamination treatment costs, (2) the measurement of those liabilities, or (3) whether environmental contamination treatment costs that are charged to expense should be reported as an unusual or extraordinary item.

The issue is whether environmental contamination treatment costs should be capitalized or charged to expense.

EITF DISCUSSION

The Task Force reached a consensus that, in general, environmental contamination treatment costs should be charged to expense. Those costs may be capitalized if recoverable but only if any one of the following criteria is met:

1. The costs extend the life, increase the capacity, or improve the safety or efficiency of property owned by the company. For purposes of this criterion, the condition of that property after the costs are incurred must be improved as compared with the condition of that property when originally constructed or acquired, if later.

2. The costs mitigate or prevent environmental contamination that has yet to occur and that otherwise may result from future operations or activities. In addition, the costs improve the property compared with its condition when constructed or acquired, if later.

3. The costs are incurred in preparing for sale that property currently held for sale.

The Task Force also discussed the implication of that consensus on the consensus previously reached on Issue No. 89-13, "Accounting for the Cost of Asbestos Removal." The Task Force affirmed its earlier consensus, noting that capitalization of asbestos treatment costs could be justified under the first criterion.

Exhibit 90-8A provides examples of the application of this consensus.

STATUS

No further EITF discussion is planned.

Capitalization of Costs to Treat Environmental Contamination

Exhibit 90-8A

EXAMPLES OF THE APPLICATION OF THE CONSENSUS ON EITF ISSUE 90-8

Environmental Contamination, Treatments	*Evaluation of Criteria*
1. Tanker Oil Spill:	
A. Clean up waterway and beachfront	1. Costs to clean up the waterway and beachfront are not eligible for consideration under the first criterion because the oil company does not own the property. 2. The cleanup of the waterway and beachfront does not mitigate or prevent a future oil spill from future operations. 3. The waterway and beachfront are not owned assets and, therefore, the third criterion does not apply. *Conclusion:* Costs incurred for cleanup and restoration in connection with the oil spill should be charged to expense.[1]
B. Reinforce tanker's hull to reduce risk of future spill	1. Reinforcing the hull improves the tanker's safety compared to when the tanker was originally constructed or acquired. 2. Reinforcing the hull mitigates the risk that the tanker will experience a similar oil spill during future operations and improves the tanker's safety compared to when the tanker was originally constructed or acquired. *Conclusion:* The costs incurred in connection with reinforcing the tanker's hull may be capitalized under either the first or second criterion.
2. Rusty Chemical Storage Tank:	
A. Remove rust that developed during ownership	1. Removing the rust has not improved the tank compared with its condition when built or acquired. 2. Removing the rust has mitigated the possibility of future leaks. However, removing the rust has not improved the tank compared with its condition when built or acquired.

[1] This consensus does not require that tangible assets acquired to clean a particular spill be charged to expense immediately. Rather, to the extent that those tangible assets have future uses, they may be capitalized and depreciated over their remaining useful lives.

Environmental Contamination, Treatments	*Evaluation of Criteria*
	Conclusion: Rust removal costs should be expensed unless the tank is currently held for sale and the costs were incurred to prepare the tank for sale.
B. Apply rust prevention chemicals	1. The application of rust prevention chemicals has improved the tank's condition compared with its condition when built or acquired. 2. Rust prevention chemicals mitigate the possibility that future rust will cause leaks and also improve the tank's condition compared with its condition when built or acquired. *Conclusion:* The costs of applying the rust prevention chemicals may be capitalized under either the first or second criterion.
3. Air Pollution Caused by Manufacturing Activities:	
A. Acquire and install pollution control equipment	1. The pollution control equipment improves the safety of the plant compared with its condition when built or acquired. 2. The pollution control equipment mitigates or prevents air pollution that has yet to occur but that may otherwise result from future operation of the plant and improves the safety of the plant compared with its condition when built or acquired. *Conclusion:* Costs associated with acquisition and installation of the pollution control equipment may be capitalized under either the first or second criterion.
B. Pay fines for violations of the Clean Air Act	1. Payment of fines does not extend the plant's life, increase its capacity, or improve its efficiency or safety. 2. Payment of fines does not mitigate or prevent pollution that has yet to occur but that may otherwise result from future operation of the plant. *Conclusion:* Fines paid in connection with violations of the Clean Air Act should be charged to expense. Even if the plant is currently held for sale, the fines should be charged to expense because the costs would not have been incurred to prepare the plant for sale.
4. Lead Pipes in Office Building Contaminate Drinking Water:	
A. Remove lead pipes and replace with copper pipes	1. Removing the lead pipes has improved the safety of the

Environmental Contamination, Treatments	*Evaluation of Criteria*
	building's water system compared with its condition when the water system was built or acquired. 2. By removing the lead pipes, the building's owner eliminated an existing environmental problem and prevented any further contamination from that lead. However, by removing the existing pipes, the building's owner has not mitigated or prevented environmental problems yet to occur, if any, from future operation of the building. *Conclusion:* Costs to remove the lead pipes and install copper pipes may be capitalized under the first criterion. The book value of the lead pipes should be charged to expense when removed.
5. Soil Contamination Caused by an Operating Garbage Dump:	
A. Refine soil on dump property	1. The life of a garbage dump is not extended by refining its soil. Further, the condition of the soil after refining will not be improved over its condition when the garbage dump was constructed or acquired. Removal of the toxic waste restores the soil to its original uncontaminated condition. 2. Removal of toxic waste from the soil addresses an existing environmental concern. It also prevents that waste from leaching in the future. However, removing the waste does not mitigate or prevent future operations from creating future toxic waste. The risk will continue regardless of how much of the existing soil is refined. *Conclusion:* Soil refinement costs should be charged to expense unless the garbage dump is currently held for sale and the costs were incurred to prepare the garbage dump for sale.
B. Install liner	1. The liner does not extend the useful life or improve the efficiency or capacity of the garbage dump. However, the liner has improved the garbage dump's safety compared to when the dump was constructed or acquired. 2. The liner addresses an existing and potential future problem. In this example, the garbage dump contains toxic waste from past operations and will likely generate

Environmental Contamination, Treatments	*Evaluation of Criteria*
	toxic waste during future operations. The liner partly addresses the existing environmental problem by preventing future leaching of existing toxic waste into the soil. The liner also mitigates or prevents leaching of toxic waste that may result from garbage dumping in a future period and has improved the garbage dump's safety compared to when the dump was constructed or acquired. *Conclusion:* The liner may be capitalized under either the first or second criterion.
6. Water Well Contamination Caused by Chemicals That Leaked into Wells Containing Water That Will Be Used in Future Beer Production:	
A. Neutralize water in wells	1. The treatment does not extend the life of the wells, increase their capacity, or improve efficiency. The condition of the water is not safer after the treatment compared to when the wells were initially acquired. 2. By neutralizing the water, the possibility of future contamination of the wells from future operations has not been mitigated or prevented. *Conclusion:* Costs incurred to neutralize well water should be charged to expense unless the wells were held for sale and the costs were incurred to prepare the wells for sale.
B. Install water filters	1. The water filters improve the safety of the wells compared with their uncontaminated state when built or acquired. 2. The water filters address future problems that may result from future operations. Since the water filters are effective in filtering environmental contamination, they mitigate the effect of spilling new contaminants into the wells during future operations. In addition, the water filters represent an improvement compared with the wells' original condition without water filters. *Conclusion:* The water filtering system may be capitalized under either the first or the second criterion.
7. Underground Gasoline Storage Tanks Leak and Contaminate the Company's Property:	

Environmental Contamination, Treatments	*Evaluation of Criteria*
A. Refine soil	1. Soil refinement does not extend the useful life, increase the capacity, or improve the efficiency or safety of the land relative to its unpolluted state when acquired. 2. By refining the contaminated soil, the oil company has addressed an existing problem. However, the company has not mitigated or prevented future leaks during future operations. *Conclusion:* Soil refining costs should be charged to expense unless the property is currently held for sale and the costs were incurred to prepare the property for sale.
B. Encase tanks so as to prevent future leaks from contaminating surrounding soil	1. In some cases, encasement may increase the life of the tanks because of their increased resistance to corrosion, leaking, etc. In other situations, the treatment does not increase the life of the tanks. However, the encasement has improved the tanks' safety compared with their condition when built or acquired. 2. Encasement has mitigated or prevented future leakage and soil contamination that might otherwise result from future operations. In addition, the encasement has improved the tanks' safety compared with their condition when built or acquired. *Conclusion:* The cost of encasement may be capitalized under either the first or the second criterion.
8. Air in Office Building Contaminated with Asbestos Fibers:	
A. Remove asbestos	1. Removal of the asbestos improves the building's safety over its original condition since the environmental contamination (asbestos) existed when the building was constructed or acquired. 2. By removing the asbestos, the building's owner has eliminated an existing environmental problem and has prevented any further contamination from that asbestos. However, by removing the existing asbestos, the building's owner has not mitigated or prevented new environmental problems, if any, that might result from future operation of the building. *Conclusion:* Asbestos removal costs may be capitalized as a betterment under the first criterion.

EITF Issue 89-13, *Accounting for the Cost of Asbestos Removal*

A-14. EITF Issue 89-13, *Accounting for the Cost of Asbestos Removal,* is reprinted below in its entirety.

Date Discussed: October 26, 1989

References: FASB Concepts Statement No. 6, *Elements of Financial Statements*

APB Opinion No. 30, *Reporting the Results of Operations—Reporting the Effects of Disposal of a Segment of a Business, and Extraordinary, Unusual and Infrequently Occurring Events and Transactions*

AICPA Accounting Interpretation 1, *Illustration of the Application of APB Opinion No. 30*

ISSUE

Various federal, state, and local laws require removal or containment of "dangerous asbestos" in buildings and regulate the manner in which the asbestos is removed or contained. A property owner incurs costs to remove or contain ("treat") asbestos in compliance with those laws.

The issues are:

1. Whether the costs incurred to treat asbestos when a property with a *known* asbestos problem is acquired should be capitalized or charged to expense
2. Whether the costs incurred to treat asbestos in an existing property should be capitalized or charged to expense
3. If it is deemed appropriate to charge asbestos treatment costs to expense, whether they should be reported as an extraordinary item

EITF DISCUSSION

The Task Force reached a consensus on the first issue that costs incurred to treat asbestos within a reasonable time period after a property with a known asbestos problem is acquired should be capitalized as part of the cost of the acquired property subject to an impairment test for that property.

The Task Force reached a consensus on the second issue that costs incurred to treat asbestos may be capitalized as a betterment subject to an impairment test for that property. When costs are incurred in anticipation of a sale of property, they should be deferred and recognized in the period of the sale to the extent that those costs can be recovered from the estimated sales price.

The Task Force reached a consensus on the third issue that asbestos treatment costs that are charged to expense are not extraordinary items under Opinion 30.

The SEC Observer noted that regardless of whether asbestos treatment costs are capitalized or charged to expense, SEC registrants should disclose significant exposure for asbestos treatment costs in "Management's Discussion and Analysis."

STATUS

No further EITF discussion is planned. A related issue was discussed in Issue No. 90-8, "Capitalization of Costs to Treat Environmental Contamination." The Task Force affirmed the consensus above, noting that capitalization of asbestos treatment costs could be justified under the consensus in Issue 90-8.

SEC Staff Accounting Bulletin No. 92, *Accounting and Disclosures Relating to Loss Contingencies*

A-15. For SEC registrants, SAB No. 92, *Accounting and Disclosures Relating to Loss Contingencies,* provides additional accounting, display, and disclosure guidance. SAB No. 92 is reproduced below.

STAFF ACCOUNTING BULLETIN NO. 92

The staff hereby adds Section Y to Topic 5 of the Staff Accounting Bulletin Series. Topic 5-Y provides guidance regarding the accounting and disclosures relating to loss contingencies. In addition, the staff hereby adds Question 7 to Topic 2-A and adds Section F to Topic 10. Question 7 of Topic 2-A discusses loss contingencies assumed in a business combination accounted for as a purchase. Topic 10-F discusses the presentation by utility companies of liabilities for environmental costs.

TOPIC 5: MISCELLANEOUS ACCOUNTING

* * * * *

Y. Accounting and disclosures relating to loss contingencies.

Facts: A registrant believes it may be obligated to pay material amounts as a result of product or environmental liability. These amounts may relate to, for example, damages attributed to the registrant's products or processes, clean-up of hazardous wastes, reclamation costs, fines, and litigation costs. The registrant may seek to recover a portion or all of these amounts by filing a claim against an insurance carrier or other third parties.

Paragraph 8 of *Statement of Financial Accounting Standards No. 5,* "Accounting for Contingencies," ("SFAS 5") states that an estimated loss from a loss contingency shall be accrued by a charge to income if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The Emerging Issues Task Force ("EITF") of the Financial Accounting Standards Board reached a consensus on EITF Issue 93-5, "Accounting for Environmental Liabilities," that an environmental liability should be evaluated independently from any potential claim for recovery. Under that consensus, any loss arising from the recognition of an environmental liability should be reduced by a potential claim for recovery only when that claim is probable[1] of realization. The EITF also reached a consensus that discounting an environmental liability for a specific clean-up site to reflect the time value of money is appropriate only if the aggregate amount of the obligation and the amount and timing of the cash payments are fixed or reliably determinable for that site. Further, any asset that is recognized relating to a claim for recovery of a liability that is recognized on a discounted basis also should be discounted to reflect the time value of money.

Because uncertainty regarding the alternative methods of presenting in the balance sheet the amounts recognized as contingent liabilities and claims for recovery from third parties was not resolved by the EITF and current disclosure practices remain diverse, the staff is publishing its interpretation of the current accounting literature and disclosure requirements to serve as guidance for public companies. The AICPA's Accounting Standards Executive Committee has appointed a task force to address environmental concerns. The staff encourages efforts by the profession to develop comprehensive guidance applicable to the accounting and financial statement disclosures relating to environmental matters.

Question 1: Does the staff believe that it is appropriate to offset in the balance sheet a claim for recovery that is probable of realization against a probable contingent liability, that is, report the two as a single net amount on the face of the balance sheet?

Interpretive Response: Not ordinarily. The staff believes that separate presentation of the gross liability and related claim for recovery in the balance sheet most fairly presents the potential consequences of the contingent claim on the company's resources and is the preferable method of display. Recent reports of litigation over insurance policies' coverage of product and environmental liabilities and financial failures in the insurance industry indicate that there are significant uncertainties regarding both the timing and the ultimate realization of claims made to recover amounts from insurance carriers and other third parties. The risks and uncertainties associated with a registrant's contingent liability are separate and distinct from those associated with its claim for recovery from third parties.

Separate presentation of the gross liability and the claim for recovery is consistent with the recent consensus of the EITF, which concluded that the amounts of the contingent liability and any claim for recovery should be estimated and evaluated independently. Furthermore, accounting guidance generally proscribes the offsetting of assets and liabilities except where a right of setoff exists.[2] This general proscription was strengthened by the recent issuance of *Financial Accounting Standards Board Interpretation No. 39,* "Offsetting of Amounts Relating to Certain Contracts," ("FIN 39"), which is effective for financial statements issued for periods beginning after December 15, 1993. The guidance in that interpretation indicates that the prohibition on setoff in the balance sheet should be applied more comprehensively than previously may have been the practice.

It is the staff's view that presentation of liabilities net of claims for recovery will not be appropriate after the provisions of FIN 39 are required to be applied in financial statements. In the interim, registrants should ensure that notes to the financial statements include information necessary to an understanding of the material uncertainties affecting both the measurement of the liability and the realization of recoveries. The staff believes these disclosures should include the gross amount of any claims for recovery that are netted against the liability.

Question 2: If a registrant is jointly and severally liable with respect to a contaminated site but there is a reasonable basis for apportionment of costs among responsible parties, must the registrant recognize a liability with respect to costs apportioned to other responsible parties?

Interpretive Response: No. However, if it is probable that other responsible parties will not fully pay costs apportioned to them, the liability that is recognized by the registrant should include the registrant's best estimate, before consideration of potential recoveries from other parties, of the additional costs that the registrant expects to pay. Discussion of uncertainties affecting the registrant's ultimate obligation may be necessary if, for example, the solvency of one or more parties is in doubt or responsibility for the site is disputed by a party. A note to the financial statements should describe any additional loss that is reasonably possible.

Question 3: Estimates and assumptions regarding the extent of environmental or product liability, methods of remedy, and amounts of related costs frequently prove to be different from the ultimate outcome. How do these uncertainties affect the recognition and measurement of the liability?

Interpretive Response: The measurement of the liability should be based on currently available facts, existing technology, and presently enacted laws and regulations, and should take into consideration the likely effects of inflation

and other societal and economic factors. Notwithstanding significant uncertainties, management may not delay recognition of a contingent liability until only a single amount can be reasonably estimated. If management is able to determine that the amount of the liability is likely to fall within a range and no amount within that range can be determined to be the better estimate, the registrant should recognize the minimum amount of the range pursuant to *Financial Accounting Standards Board Interpretation No. 14,* "Reasonable Estimation of the Amount of a Loss" ("FIN 14"). The staff believes that recognition of a loss equal to the lower limit of the range is necessary even if the upper limit of the range is uncertain.

In measuring its environmental liability, a registrant should consider available evidence including the registrant's prior experience in remediation of contaminated sites, other companies' clean-up experience, and data released by the Environmental Protection Agency or other organizations. Information necessary to support a reasonable estimate or range of loss may be available prior to the performance of any detailed remediation study. Even in situations in which the registrant has not determined the specific strategy for remediation, estimates of the costs associated with the various alternative remediation strategies considered for a site may be available or reasonably estimable. While the range of costs associated with the alternatives may be broad, the minimum clean-up cost is unlikely to be zero. As additional information becomes available, changes in estimates of the liability should be reported in the period that those changes occur in accordance with paragraphs 31–33 of *Accounting Principles Board Opinion No. 20,* "Accounting Changes."

Question 4: Assuming that the registrant's estimate of an environmental or product liability meets the conditions set forth in the consensus on EITF Issue 93-5 for recognition on a discounted basis, what discount rate should be applied?

Interpretive Response: The staff believes that the rate used to discount the cash payments should be the rate that will produce an amount at which the environmental or product liability could be settled in an arm's-length transaction with a third party. If that rate is not readily determinable, the discount rate used to discount the cash payments should not exceed the interest rate on monetary assets that are essentially risk free[3] and have maturities comparable to that of the environmental or product liability.

If the liability is recognized on a discounted basis to reflect the time value of money, the notes to the financial statements should, at a minimum, include disclosures of the discount rate used, the expected aggregate undiscounted amount, expected payments for each of the five succeeding years and the aggregate amount thereafter, and a reconciliation of the expected aggregate undiscounted amount to amounts recognized in the statements of financial position. Material changes in the expected aggregate amount since the prior balance sheet date, other than those resulting from pay-down of the obligation, should be explained.

Question 5: What financial statement disclosures should be furnished with respect to recorded and unrecorded product or environmental liabilities?

Interpretive Response: Paragraphs 9 and 10 of SFAS 5 identify disclosures regarding loss contingencies that generally are furnished in notes to financial statements. The staff believes that product and environmental liabilities typically are of such significance that detailed disclosures regarding the judgments and assumptions underlying the recognition and measurements of the liabilities are necessary to prevent the financial statements from being misleading and to inform readers fully regarding the range of reasonably possible outcomes

that could have a material effect on the registrant's financial condition, results of operations, or liquidity. Examples of disclosures that may be necessary include:

- Circumstances affecting the reliability and precision of loss estimates.
- The extent to which unasserted claims are reflected in any accrual or may affect the magnitude of the contingency.
- Uncertainties with respect to joint and several liability that may affect the magnitude of the contingency, including disclosure of the aggregate expected cost to remediate particular sites that are individually material if the likelihood of contribution by the other significant parties has not been established.
- Disclosure of the nature and terms of cost-sharing arrangements with other potentially responsible parties.
- The extent to which disclosed but unrecognized contingent losses are expected to be recoverable through insurance, indemnification arrangements, or other sources, with disclosure of any material limitations of that recovery.
- Uncertainties regarding the legal sufficiency of insurance claims or solvency of insurance carriers.[4]
- The time frame over which the accrued or presently unrecognized amounts may be paid out.
- Material components of the accruals and significant assumptions underlying estimates.

Registrants are cautioned that a statement that the contingency is not expected to be material does not satisfy the requirements of SFAS 5 if there is at least a reasonable possibility that a loss exceeding amounts already recognized may have been incurred and the amount of that additional loss would be material to a decision to buy or sell the registrant's securities. In that case, the registrant must either (*a*) disclose the estimated additional loss, or range of loss, that is reasonably possible, or (*b*) state that such an estimate cannot be made.

Question 6: What disclosures regarding loss contingencies may be necessary outside the financial statements?

Interpretive Response: Registrants should consider the requirements of Items 101 (Description of Business), 103 (Legal Proceedings), and 303 (Management's Discussion and Analysis) of Regulations S-K and S-B. The Commission has issued two interpretive releases that provide additional guidance with respect to these items.[5] In a 1989 interpretive release, the Commission noted that the availability of insurance, indemnification, or contribution may be relevant in determining whether the criteria for disclosure have been met with respect to a contingency.[6] The registrant's assessment in this regard should include consideration of facts such as the periods in which claims for recovery may be realized, the likelihood that the claims may be contested, and the financial condition of third parties from which recovery is expected.

Disclosures made pursuant to the guidance identified in the preceding paragraph should be sufficiently specific to enable a reader to understand the scope of the contingencies affecting the registrant. For example, a registrant's discussion of historical and anticipated environmental expenditures should, to the extent material, describe separately (*a*) recurring costs associated with managing hazardous substances and pollution in on-going operations, (*b*) capital

expenditures to limit or monitor hazardous substances or pollutants, (*c*) mandated expenditures to remediate previously contaminated sites, and (*d*) other infrequent or nonrecurring clean-up expenditures that can be anticipated but which are not required in the present circumstances. Disaggregated disclosure that describes accrued and reasonably likely losses with respect to particular environmental sites that are individually material may be necessary for a full understanding of these contingencies. Also, if management's investigation of potential liability and remediation cost is at different stages with respect to individual sites, the consequences of this with respect to amounts accrued and disclosed should be discussed.

Examples of specific disclosures typically relevant to an understanding of historical and anticipated product liability costs include the nature of personal injury or property damages alleged by claimants, aggregate settlement costs by type of claim, and related costs of administering and litigating claims. Disaggregated disclosure that describes accrued and reasonably likely losses with respect to particular claims may be necessary if they are individually material. If the contingency involves a large number of relatively small individual claims of a similar type, such as personal injury from exposure to asbestos, disclosure of the number of claims filed for each period presented, the number of claims dismissed, settled, or otherwise resolved for each period, and the average settlement amount per claim may be necessary. Disclosures should address historical and expected trends in these amounts and their reasonably likely effects on operating results and liquidity.

Question 7: What disclosures should be furnished with respect to site restoration costs or other environmental exit costs?

Interpretive Response: The staff believes that material liabilities for site restoration, post-closure, and monitoring commitments, or other exit costs that may occur on the sale, disposal, or abandonment of a property should be disclosed in the notes to the financial statements. Appropriate disclosures generally would include the nature of the costs involved, the total anticipated cost, the total costs accrued to date, the balance sheet classification of accrued amounts, and the range or amount of reasonably possible additional losses.

If an asset held for sale or development will require remediation to be performed by the registrant prior to development, sale, or as a condition of sale, a note to the financial statements should describe how the necessary expenditures are considered in the assessment of the asset's net realizable value. Additionally, if the registrant may be liable for remediation of environmental damage relating to assets or businesses previously disposed, disclosure should be made in the financial statements unless the likelihood of a material unfavorable outcome of that contingency is remote. The registrant's accounting policy with respect to such costs should be disclosed in accordance with *Accounting Principle Board Opinion No. 22,* "Disclosure of Accounting Policies."

Question 8: A registrant expects to incur site restoration costs, post-closure and monitoring costs, or other environmental exit costs at the end of the useful life of the asset. Would the staff object to the registrant's proposal to accrue the exit costs over the useful life of the asset?

Interpretive Response: No. This is an established accounting practice in some industries. In other industries, the staff will raise no objection to that accounting provided that the criteria in paragraph 8 of SFAS 5 are met. The staff acknowledges that in some circumstances the use of the asset in operations gives rise to growing exit costs that represent a probable liability. The accrual of the liability should be recognized as an expense in accordance with the consensus on EITF Issue 90-8, "Capitalization of Costs to Treat Environmental Contamination." See interpretive responses to questions 7 and 8 for guidance on appropriate disclosures.

TOPIC 2: BUSINESS COMBINATIONS

* * * * *

A: Purchase Method

7. Loss contingencies assumed in a business combination.

Facts: A registrant acquires a business enterprise in a transaction accounted for by the purchase method. In connection with the acquisition, the acquiring company assumes certain contingent liabilities of the acquired company.

Question: How should the acquiring company account for and disclose contingent liabilities that have been assumed in a business combination?

Interpretive Response: In accordance with *Accounting Principles Board Opinion No. 16,* "Business Combinations," the acquiring company should allocate the cost of an acquired company to the assets acquired and liabilities assumed based on their fair values at the date of acquisition. With respect to contingencies for which a fair value is not determinable at the date of acquisition, the guidance of *Statement of Financial Accounting Standards No. 5,* "Accounting for Contingencies" and *Financial Accounting Standards Board Interpretation No. 14,* "Reasonable Estimation of the Amount of a Loss" should be applied. If the registrant is awaiting additional information that it has arranged to obtain for the measurement of a contingency during the allocation period specified by *Statement of Financial Accounting Standards No. 38,* "Accounting for Preacquisition Contingencies of Purchased Enterprises," the staff believes that the registrant should disclose that the purchase price allocation is preliminary. In that circumstance, the registrant should describe the nature of the contingency and furnish other available information that will enable a reader to understand its potential effects on the final allocation and on post-acquisition operating results. Management's Discussion and Analysis should include appropriate disclosure regarding any unrecognized preacquisition contingency and its reasonably likely effects on operating results, liquidity, and financial condition.

The staff believes that the allocation period should not extend beyond the minimum reasonable period necessary to gather the information that the registrant has arranged to obtain for purposes of the estimate. Since an allocation period usually should not exceed one year, registrants believing that they will require a longer period are encouraged to discuss their circumstances with the staff. If it is unlikely that the liability can be estimated on the basis of information known to be obtainable at the time of the initial purchase price allocation, the allocation period should not be extended with respect to that liability. An adjustment to the contingent liability after the expiration of the allocation period would be recognized as an element of net income.

TOPIC 10: UTILITY COMPANIES

* * * * *

F. Presentation of Liabilities for Environmental Costs

Facts: A public utility company determines that it is obligated to pay material amounts as a result of an environmental liability. These amounts may relate to, for example, damages attributed to clean-up of hazardous wastes, reclamation costs, fines, and litigation costs.

Question 1: May a rate-regulated enterprise present on its balance sheet the amount of its estimated liability for environmental costs net of probable future revenue resulting from the inclusion of such costs in allowable costs for rate-making purposes?

Interpretive Response: No. *Statement of Financial Accounting Standards No. 71,* "Accounting for the Effects of Certain Types of Regulation," ("SFAS 71") specifies the conditions under which rate actions of a regulator can provide reasonable assurance of the existence of an asset. The staff believes that environmental costs meeting the criteria of paragraph 9[7] of SFAS 71 should be presented on the balance sheet as an asset and should not be offset against the liability. Contingent recoveries through rates that do not meet the criteria of paragraph 9 should not be recognized either as an asset or as a reduction of the probable liability.

Question 2: May a rate-regulated enterprise delay recognition of a probable and estimable liability for environmental costs which it has incurred at the date of the latest balance sheet until the regulator's deliberations have proceeded to a point enabling management to determine whether this cost is likely to be included in allowable costs for rate-making purposes?

Interpretive Response: No. *Statement of Financial Accounting Standards No. 5,* "Accounting for Contingencies," states that an estimated loss from a loss contingency shall be accrued by a charge to income if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. The staff believes that actions of a regulator can affect whether an incurred cost is capitalized or expensed pursuant to SFAS 71, but the regulator's actions cannot affect the timing of the recognition of the liability.

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[1] Paragraph 3 of SFAS 5 defines probable as "likely to occur."

[2] Paragraph 7 of Accounting Principles Board Opinion No. 10, "Omnibus Opinion." Also, FASB Technical Bulletin 88-2, "Definition of a Right of Setoff."

[3] As described in paragraph 4(a) of *Statement of Financial Accounting Standards No. 76*, "Extinguishment of Debt."

[4] The staff believes there is a rebuttable presumption that no asset should be recognized for a claim for recovery from a party that is asserting that it is not liable to indemnify the registrant. Registrants that overcome that presumption should disclose the amount of recorded recoveries that are being contested and discuss the reasons for concluding that the amount is probable of recovery.

[5] See Securities Act Release No. 6130 (September 27, 1979) and Financial Reporting Release No. 36 (May 18, 1989).

[6] See, for example, footnote 30 of Financial Reporting Release No. 36 (footnote 17 of Section 501.02 of the Codification of Financial Reporting Policies).

[7] Paragraph 9 of SFAS 71 requires a rate-regulated enterprise to capitalize all or part of an incurred cost that would otherwise be charged to expense if it is probable that future revenue will be provided to recover the previously incurred cost from inclusion of the costs in allowable costs for rate-making purposes.

GASB Literature

A-16. Although this SOP does not include state and local governmental entities in its scope,[18] guidance issued by the GASB may be relevant to some reporting entities applying this SOP.

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[18] Under the provisions of Governmental Accounting Standards Board (GASB) Statement No. 20, *Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities That Use Proprietary Fund Accounting,* paragraph 7, proprietary activities may apply *all* FASB Statements and Interpretations issued after November 30, 1989, *except for* those that conflict with or contradict GASB pronouncements. Paragraph 33 of the Basis For Conclusions of that Statement explains that, for proprietary activities that apply paragraph 7, an AICPA SOP or Industry Audit and Accounting Guide that does not include governmental entities in its scope but that has been cleared by the FASB would be considered category (b) guidance under SAS No. 69, *The Meaning of* Present Fairly in Conformity With Generally Accepted Accounting Principles, issued by the Auditing Standards Board (ASB) of the AICPA.

A-17. GASB Statement No. 18, *Accounting for Municipal Solid Waste Landfill Closure and Postclosure Care Costs*, which is effective for financial statements for periods beginning after June 15, 1993, applies to state and local governmental entities that are required by federal, state, or local laws or regulations to incur closure and postclosure care costs on landfills.

A-18. Under GASB Statement No. 18, the estimated total current cost of a landfill closure and postclosure care includes the following (measured in terms of current dollars):

- Cost of equipment expected to be installed and facilities expected to be constructed near or after the date the landfill stops accepting solid waste and during the postclosure period.
- Cost of the final cover (capping) expected to be applied near or after the date the landfill stops accepting solid waste.
- Cost of monitoring and maintaining the expected usable landfill area during the postclosure period.

A-19. A portion of the estimated total current cost of a landfill closure and postclosure care is required to be recognized as an expense and as a liability in each period the landfill accepts solid waste, and recognition is to be completed by the time the landfill stops accepting waste. The cumulative effect of changes in the estimate of the current cost of landfill closure and postclosure care (including the impact of inflation) is recognized in the period of the change.

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Appendix B

Remediation Liability Case Study

B-1. *The following case study illustrates the application of the recognition and measurement guidance provided in this SOP; it does not illustrate all disclosure requirements set forth in this SOP. The case study is not intended to be used to evaluate financial statements issued prior to the effective date of this SOP.*

Typical Superfund Off-Site Scenario

Prior to 1980, the XYZ Manufacturing Company contracted with a state-licensed waste hauling contractor to remove specified, nonhazardous solid and liquid industrial waste from one of its plants for disposal off-site at a state-licensed disposal facility. A purchase order was let, and the work was performed. The contractor complied with all applicable laws and regulations, and monthly reports were filed with appropriate state environmental agencies.

1986

In 1986, the company received an information request from the United States Environmental Protection Agency (EPA) pursuant to section 104 of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The information request stated that the EPA believed that hazardous substances at a site, now listed by the EPA on its National Priorities List (NPL), were generated at XYZ's plant. XYZ was named as a potentially responsible party (PRP) and was directed by the EPA, under penalty of law, to search its records exhaustively and answer a series of questions possibly implicating it directly to the site, or indirectly by its having used one or more transporters the EPA said it was also investigating.

XYZ searched its records as directed and determined late in 1986 that it had, in fact, contributed hazardous substances to the site. XYZ could not, however, determine how significant the hazardous substances it had sent to the site were in relation to the total population of hazardous substances at the site. The minimum remediation cost, including a minimum amount of legal fees, that XYZ was able to estimate was not material to its financial statements. XYZ was able, however, to determine that it was reasonably possible that its ultimate liability could be material.

1987

The EPA identified a number of waste generators, transporters, and site owner/operators as likely PRPs. The identified PRPs were invited to a meeting at which government lawyers requested that one or more of the PRPs voluntarily perform a remedial investigation/feasibility study (RI/FS) to evaluate existing site conditions (including a public health and ecological risk assessment) and to develop a proposed array of remedial alternatives from which the EPA would select a remedy and demand that it be implemented. Standardized EPA terms and conditions, stipulated penalty provisions, and indeterminate scope of work elements inhibited voluntary agreement among the PRPs, and so a consent decree was not achieved.

1988

The EPA asserted the existence of "imminent and substantial endangerment" at the site early in 1988 under section 106 of CERCLA, and it issued a unilateral

administrative order to the PRP with the deepest pockets—XYZ—to undertake the RI/FS.

Because treble damages are authorized under section 106 of CERCLA, XYZ agreed to conduct the RI/FS specified in the order and demanded that other identified PRPs participate in the effort. XYZ initially estimated the cost that would be incurred to perform the RI/FS to be between $1 million and $2 million. Based on the limited information that was available about the site, information that XYZ had about its contribution to the site, and the number and financial condition of other PRPs, XYZ initially estimated that its ultimate share of this cost would prove to be in the range of 20 percent to 50 percent. XYZ also estimated that it would incur legal costs related to the remediation effort of $200,000 to $2 million in addition to any legal costs that might be incurred by any PRP group that might be formed. No amounts within any of these ranges were considered to be better estimates than any other amounts within any of these ranges. Because of a lack of information about the type and extent of the remediation effort that could be required, no range of cost of the overall remediation effort could be developed at this time.

Under threat of a contribution lawsuit by XYZ, a PRP group was formed late in 1988. The PRP group had three objectives: (1) to implement the requirements of the unilateral administrative order in the most cost-effective and scientifically valid way, (2) to raise money and allocate costs among the PRPs willing to perform the work based on the types and relative quantities of wastes shipped to the site or another agreed-upon formula, and (3) to recover costs from nonparticipating PRPs, if possible.

1989

Because of the lack of a good data base of factual information upon which to make sound allocation decisions agreeable to all, outside arbitration was utilized in 1989 to allocate "fair share" costs among participating PRPs. The arbitrator preliminarily apportioned 65 percent of the costs for the site to the four participating PRPs, as follows:

XYZ	20%
PRP No. 2	20
PRP No. 3	15
PRP No. 4	10
	65%
Orphan share	25
Recalcitrant share	10
	100%

Twenty-five percent of the site was determined to be the "orphan share," for which no PRP could be identified. Ten percent was attributed to two recalcitrant (nonparticipating) PRPs, and there was insufficient information to overcome the presumption that costs will be allocated only among the participating PRPs.

XYZ gained some understanding of the other participating PRPs' financial condition and believed each of them was able and likely to pay its full share of the costs of the RI/FS. XYZ was concerned, however, about the ability of PRP No. 3 to pay its full share of the cost of the overall remediation effort.

Based on the amount already spent on legal costs and the results of PRP organization efforts, XYZ determined that $350,000 was the best estimate of its

separate legal costs. The estimate of the costs that will be incurred to perform the RI/FS, which now included group administration costs, now stood at $1.2 million to $2.2 million.

1991

The RI/FS was substantially completed in 1991. No changes were made to the PRP allocation percentages as a result of the RI/FS completion. The PRP group's initial estimate of the cost of implementing the remedy expected to be required by the EPA was $25 million to $30 million. No amount within this range was considered to be a better estimate than any other amount within the range. This estimate included estimates of the cost of all elements of the remediation effort, including common legal, engineering, construction, monitoring, operation and maintenance costs (including postremediation monitoring for a period of thirty years), and so forth.

XYZ believed that PRP No. 2 and PRP No. 4 could and would pay their full shares of the cost of the remediation effort. PRP No. 3, however, indicated that, because of its deteriorating financial position, it would likely be unable to pay more than two-thirds of its 15 percent share and none of its allocated amount attributed to the orphan and recalcitrant shares, or 10 percent of those costs. XYZ shared PRP No. 3's views about PRP No. 3's ability to pay.

1992

Three years after site studies began, the EPA and its outside contractors evaluated the reports submitted under the terms of the unilateral administrative order. A record of decision (ROD) was issued by the EPA on September 30, 1992, in which remedial actions based on the RI/FS were selected and cost estimates were presented. The PRPs were requested to voluntarily implement the ROD and again sign up to the terms demanded by the government. No preenforcement federal court review is permitted, even if the remedy specified in the ROD is scientifically flawed, unattainable by available, proven technology, non-cost-effective, or open-ended. The PRPs had the following choices: perform the remedy specified in the ROD voluntarily, or refuse to do work, in which case the EPA would either issue another unilateral administrative order or perform the work using its contractor procurement systems and sue the PRPs for cost recovery. The PRPs agreed to perform the remedy specified in the ROD and entered into a consent judgment.

Note: The law requires the EPA to review the ROD and remedy within five years of its implementation by the PRPs. If the objectives of the ROD have not been attained, the EPA may make additional demands on the PRPs. If one or more PRPs believe they have paid a disproportionate share of the costs, they may track down other PRPs and sue them in a contribution action. Although requests for reimbursement from Superfund can also be made for allocations attributed to unidentified or unknown parties (the orphan share) under certain conditions, this is not usually allowed by terms and conditions of consent order settlements with EPA.

Discussion of Case

FASB Statement No. 5, *Accounting for Contingencies,* requires accrual of a loss contingency when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Receipt in 1986 of an information request did not establish that a liability was probable because, notwithstanding the EPA's interest in XYZ's connection, if any, to the site, it had not

been established that XYZ was in fact associated with the site. As noted in chapter 5 of the SOP, however, "receipt of notification that an entity may be a PRP compels the entity to action."

When XYZ determined late in 1986 that it had, in fact, contributed hazardous substances to the site, the liability became probable. The criteria for recognition had not yet been met, however, because XYZ did not have sufficient information to reasonably estimate a minimum amount in the range of its liability that would be material to its financial statements. Disclosure of the nature of the contingency and a statement that an estimate of the loss or range of loss cannot be made was required under FASB Statement No. 5.

During 1987, little additional information that would aid XYZ in making an estimate of the loss or range of loss became available. Therefore, the accounting and disclosure for the contingent loss related to the remediation liability remained the same.

In 1988, when XYZ agreed to perform an RI/FS in accordance with the EPA's unilateral administrative order and the PRP group was formed, XYZ should have recorded a liability of $400,000, computed as follows:

XYZ's estimated share of the minimum amount in the range of the estimated cost of the RI/FS [*20 percent of $1,000,000*]	$200,000
XYZ's minimum estimate of its legal costs	200,000
	$400,000

Because other PRPs had agreed during 1988 to participate in the RI/FS effort, they are considered to be participating PRPs. Neither the fact that the unilateral administrative order named only XYZ nor the fact that a preliminary cost-sharing formula had not yet been determined by the arbitrator should have required XYZ to accrue more than its estimated allocable share of the minimum estimated liability.

Although no recognition benchmarks were achieved in 1989 or 1990, XYZ should have refined its estimate of its liability as additional significant information became available. For example, in 1989, when the preliminary cost-sharing formula was developed by the arbitrator and the estimate of the cost of the RI/FS was revised, XYZ should have refined its estimate of its share of the cost of the RI/FS and adjusted its liability to $719,231, less any amounts already expended. $719,231 is computed as follows:

XYZ's allocable share of the minimum amount in the range of the estimated cost of the RI/FS [*20 percent of $1.2 million*]	$240,000
XYZ's pro rata share of amounts allocable to other parties but that are not expected to be paid by those other parties [*20/65 of 35 percent of $1.2 million*]	129,231
XYZ's estimated legal costs	350,000
	$719,231

By the time the feasibility study was substantially completed in 1991, XYZ should have adjusted its liability to reflect its estimated share of the minimum amount of the overall remediation liability. Based on the facts presented, this amount should be $9,350,000, less any amounts already expended. $9,350,000 is computed as follows:

20% of $25 million	$5,000,000
20/65 of 35 percent of $25 million	2,692,308
20/50 of amount allocable to PRP No. 3 that is not expected to be paid by PRP No. 3 [*20/50 of 5 percent of $25 million plus 20/50 of 15/65 of 35 percent of $25 million*]	1,307,692
Estimated legal costs	350,000
	$9,350,000

The estimate of the environmental remediation liability should be further refined when the ROD is issued in 1992 and at various other points when additional information becomes available.

The measurement of the remediation liability should not have been discounted at any point during the period under discussion because the amount of the obligation and the amount and timing of cash payments were not fixed or reliably determinable.

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Appendix C

Auditing Environmental Remediation Liabilities

This section presents the recommendations of the Environmental Issues Task Force of the Auditing Standards Board regarding the application of generally accepted auditing standards to the audit of an entity's financial statements as it relates to environmental remediation liabilities. Members of the AICPA's Auditing Standards Board have found this guidance to be consistent with existing auditing standards. AICPA members should be prepared to justify departures from this guidance.

Environmental Issues Task Force

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Introduction and Scope

C-1. The accounting and disclosure issues related to environmental remediation liabilities are complex. The exposure to such liabilities and the controls implemented by entities to identify and evaluate these liabilities vary from entity to entity. Estimates of environmental remediation liabilities usually are predicated on subjective information and numerous judgments about how matters will be resolved in the future. Such matters generally increase audit risk in an audit of financial statements in accordance with generally accepted auditing standards (GAAS).

C-2. Management is responsible for establishing and maintaining controls that will enable it to identify, evaluate, and account for litigation, claims, and assessments and to reflect them in the financial statements in conformity with GAAP. FASB Statement No. 5, *Accounting for Contingencies,* requires accrual of a liability when (*a*) information available prior to issuance of the financial statements indicates that it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements, and (*b*) the amount of the loss can be reasonably estimated. FASB Statement No. 5 also requires certain disclosures about contingencies. Chapters 5 to 7 of this SOP provide guidance on applying FASB Statement No. 5 to matters involving environmental remediation liabilities.

C-3. The guidance in this section focuses on planning, performing, and reporting on an audit of financial statements in accordance with GAAS as it relates to auditing environmental remediation liabilities arising from Superfund laws, the corrective action provisions of the Resource Conservation and Recovery Act of 1976 (RCRA), and other analogous federal, state, and non-United States laws and regulations. The guidance is not intended to apply to other types of environmental engagements, such as engagements to report on compliance with environmental laws and regulations as performed under Statement on Standards for Attestation Engagements (SSAE) No. 3, *Compliance Attestation.* However, certain aspects of this guidance may be useful in such engagements. This appendix does not provide guidance on auditing the liabilities of insurance companies for unpaid claims or auditing asset impairment.

Audit Planning and Objectives

Understanding the Business

C-4. Statement on Auditing Standards (SAS) No. 22, *Planning and Supervision*, presents guidance on planning the audit of an entity's financial statements. Planning involves the development of an overall strategy for the expected conduct of an audit. SAS No. 22 recognizes that the nature, timing, and extent of the planning will vary with the size and complexity of the entity whose financial statements are being audited and with the auditor's experience with the entity and knowledge of the entity's business. As part of the planning process, the auditor should obtain an understanding of the accounting and disclosure requirements for environmental remediation liabilities, which are set forth in chapters 5 to 7 of this SOP. As stated in paragraphs 6 to 8 of SAS No. 22, the auditor should obtain a level of knowledge about matters related to the nature of the entity's business, its organization, and its operating characteristics that will enable the auditor to plan and perform the audit in accordance with GAAS. Examples of such matters that pertain to environmental remediation liabilities include the following:

- The industry or industries in which the entity operates
- The types of products or services provided by the entity
- The number and characteristics of the entity's locations
- Applicable governmental regulations
- Production and distribution processes

Knowledge about such matters ordinarily is obtained through experience with the entity or its industry and inquiry of entity personnel. Inquiries about environmental remediation liabilities might be directed to accounting, finance, operations, environmental, compliance, or legal personnel. Other useful sources of information about environmental remediation liabilities may include industry publications, financial statements, and other publicly available information from entities in the same industry, and information available from regulatory agencies.

C-5. Questions that might be asked of entity personnel to obtain an understanding of potential environmental remediation liabilities to which an entity may be exposed include the following:

- What controls are in place to identify potential environmental remediation liabilities or related contingencies affecting the entity?
- Has the entity been designated as a PRP by the EPA under the Superfund laws or by state regulatory agencies under analogous state laws?
- If the entity has been designated as a PRP, are there any pending civil or criminal investigations or actions?
- Have regulatory authorities or environmental consultants issued any reports about the entity, such as site assessments or environmental impact studies?
- Are landfills or underground storage tanks used to store or dispose of environmentally hazardous substances?
- Is the entity required to have environmental permits, such as hazardous waste transporter permits or hazardous waste treatment, storage, and disposal permits?
- For property sold, abandoned, purchased, or closed, are there any requirements for site cleanup or for future removal and site restoration?
- Have there been any violations of environmental laws, such as the Superfund laws and the corrective action provisions of RCRA?

It also may be helpful when planning the audit of environmental remediation liabilities to review minutes of meetings of the board of directors (or committees) and reports related to such matters prepared by the entity's internal auditors, compliance officers, or other individuals responsible for such matters.

C-6. Depending on the extent of the entity's exposure to environmental remediation liabilities, the auditor may decide to involve personnel knowledgeable about such matters in the audit and to use the work of a specialist.

Audit Objectives

C-7. It is management's responsibility to develop appropriate estimates of environmental remediation liabilities for use in the preparation of the financial

statements. It is the auditor's responsibility to evaluate the reasonableness of those estimates in forming his or her opinion on the financial statements taken as a whole. Most of the auditor's work in forming his or her opinion consists of obtaining and evaluating evidential matter concerning assertions in the financial statements. Assertions are representations by management that are embodied in the financial statement components. With respect to environmental remediation liabilities, the relevant financial statement assertions and the related objectives of the auditor are shown in the following table:

Assertions	*Objective*
Completeness and valuation	To determine whether all environmental remediation liabilities that should be presented in the financial statements are identified and reflected in the financial statements in conformity with GAAP
Presentation and disclosure	To determine whether environmental remediation liabilities and contingencies are classified, described, and disclosed in the financial statements in conformity with GAAP

The auditor assesses inherent risk and control risk to determine the nature, timing, and extent of the substantive procedures that will be performed to achieve these objectives.

Assessing Audit Risk

C-8. Once the auditor has obtained an understanding of the potential environmental remediation liabilities to which the entity may be exposed, he or she should make preliminary judgments about materiality and should assess audit risk. SAS No. 47, *Audit Risk and Materiality in Conducting an Audit*, provides guidance to the auditor on assessing audit risk and materiality when planning and performing an audit of an entity's financial statements. Audit risk is the risk that the auditor may unknowingly fail to appropriately modify his or her opinion on financial statements that are materially misstated. Audit risk is composed of inherent risk, control risk, and detection risk.

C-9. *Inherent Risk.* SAS No. 47 defines inherent risk as the susceptibility of an assertion to a material misstatement, assuming there are no related internal controls. In assessing inherent risk for assertions about environmental remediation liabilities, the auditor should consider the knowledge he or she has obtained about the industry in which the entity operates. Certain industries, by nature, tend to have a significant risk of exposure to environmental remediation liabilities. Examples of such industries include chemicals, oil and gas, pharmaceuticals, mining, and utilities. However, an entity need not operate in one of these industries to be exposed to environmental remediation liabilities. Examples of other industries with potential exposure to environmental remediation liabilities are real estate, banking, insurance, and health care. Certain research and development activities (including those engaged in by some not-for-profit entities) also may be subject to significant exposures.

C-10. Certain transactions, such as past acquisitions involving real property (including acquisitions by a creditor pursuant to default by a debtor), may expose an entity to environmental remediation liabilities. Under the Superfund laws, current and former owners of land may be responsible for clean-up costs. Situations such as the following may indicate the existence of potential environmental remediation liabilities:

- Past or current ownership of property on which hazardous substances are being or were disposed of
- Recent purchases of property at prices that appear to be significantly below market
- Sales of contaminated land under arrangements whereby the seller retains responsibility for clean-up pursuant to indemnification clauses
- Aborted real estate sales transactions
- Sales of businesses involving the retention of real property by the seller

C-11. When assessing inherent risk, the auditor should recognize that estimates of environmental remediation liabilities are affected by factors that management cannot control, such as the actions of regulators and the recommendations and opinions of technical and engineering experts. For this reason, the evaluation of environmental remediation liabilities usually involves considerable analysis and subjective estimation by management and the assistance of third parties such as attorneys and environmental engineers.

C-12. *Control Risk.* SAS No. 47 defines control risk as the risk that a material misstatement that could occur in an assertion will not be prevented or detected on a timely basis by the entity's internal control. SAS No. 55, *Consideration of Internal Control in a Financial Statement Audit*, as amended by SAS No. 78, identifies the components of internal control and explains how an independent auditor should consider internal control in planning and performing an audit. An entity's internal control consists of five components: control environment, risk assessment, control activities, information and communication, and monitoring. For an entity with potential exposure to environmental remediation liabilities, the auditor's understanding of the entity's internal control generally should extend to controls designed to help management identify and evaluate environmental remediation liabilities and loss contingencies. The level of sophistication of an entity's internal control as it relates to environmental remediation matters varies from entity to entity. Relevant factors that an entity might consider when designing its internal control include such matters as the extent of exposure to which the entity is subject, the geographical diversity of the entity, and the remediation activities undertaken or expected to be required. Some entities have specially designed systems for data collection and quantification, and expert personnel involved in the evaluation and oversight of remediation activities. Other entities have less formal means of gathering information and may rely on outside parties to assist management in its evaluation and oversight of remediation activities.

C-13. SAS No. 55 also provides guidance on assessing control risk. The auditor may decide to perform tests of controls, to the extent deemed appropriate in the circumstances, to determine whether control risk may be assessed at less than the maximum level. In other cases, the auditor may assess control risk at the maximum level for all or a portion of the financial statement assertions related to environmental remediation liabilities because the auditor

believes that the controls are unlikely to be effective or because evaluating the effectiveness of the controls would be inefficient. The auditor's assessment of inherent risk and control risk, as discussed above, forms the basis for his or her decisions about the nature, timing, and extent of substantive audit procedures to be performed.

Substantive Audit Procedures

C-14. Substantive audit procedures are designed to obtain sufficient competent evidential matter related to the audit objectives. The auditor's substantive tests of environmental remediation liabilities generally consist of testing the accounting estimates recorded by management, making inquiries of legal counsel or identified specialists, and obtaining representations from management.

C-15. SAS No. 57, *Auditing Accounting Estimates,* provides guidance to the auditor on obtaining and evaluating sufficient competent evidential matter to support financial statement assertions that are based on significant accounting estimates. When evaluating the reasonableness of the estimates of environmental remediation liabilities, the auditor should first understand how management developed the estimates. Based on that understanding, the auditor should use one or a combination of the following approaches set forth in SAS No. 57 to audit the estimate.

a. Review and test the process used by management to develop the estimate.

b. Develop an independent expectation of the estimate to corroborate the reasonableness of management's estimate.

c. Review subsequent events or transactions occurring prior to the completion of fieldwork.

When auditing environmental remediation liabilities, approaches *a* and *b*, or a combination thereof, usually will be most effective. Approach *c*, taken alone, normally will not be effective because remediation costs are expended over a long period of time, usually extending well beyond the completion of fieldwork.

C-16. The auditor should select the approach or approaches based on his or her judgment as to the degree of evidential matter necessary in the circumstances, including consideration of the approach or approaches expected to be most efficient. Because of the complexity involved in developing estimates of environmental remediation liabilities, including the possible need to use the work of a specialist, approach *a* normally will be most efficient.

Reviewing and Testing the Process Used by Management to Develop the Estimate

C-17. The auditor may evaluate the reasonableness of estimates of environmental remediation liabilities by reviewing the process used by management to develop the estimate and by performing procedures to test it. This approach often is the most appropriate when the estimates are developed by or based on the work of an environmental specialist.

C-18. SAS No. 57 identifies the following as procedures the auditor may consider performing when using this approach:

a. Identify whether there are controls over the preparation of accounting estimates and supporting data that may be useful in the evaluation. Some of the more common controls over the preparation of estimates of environmental remediation liabilities that might be considered by the auditor include—

- The nature and extent of monitoring by senior management or the board of directors of the entity's consideration of environmental remediation liabilities.
- The nature and extent of procedures in place for assessing compliance with applicable environmental laws and regulations and for evaluating possible violations.
- The nature and extent of procedures in place for involving appropriate operating, financial, legal, and compliance personnel in monitoring the entity's environmental remediation liabilities, and in developing the estimates.
- The information systems used by the entity to compile and access data about the entity's waste generation, emissions, and other environmental impacts.
- The entity's use of environmental specialists, including its procedures for determining whether the specialists have the requisite skill or knowledge regarding environmental remediation matters, knowledge of the entity's business, and understanding of the available methodologies for calculating environmental remediation cost estimates.
- The procedures in place for verifying that data about the nature, destinations, and volumes of hazardous substances or wastes are appropriately collected, classified, and summarized.
- The procedures in place for assessing the appropriateness of industry or other external sources of data used in developing assumptions (for example, information provided by other PRPs, regulatory authorities, and industry associations) and, where applicable, for substantiating such information.

b. Identify the sources of data and factors that management used in forming the assumptions, and consider whether such data and factors are relevant, reliable, and sufficient for the purpose, based on information gathered in other audit tests. Sources of data and factors used may include—

- Internal company records, such as payroll records for employees who devote significant time directly to environmental remediation efforts.
- Information from published sources about socioeconomic trends or other factors that might affect environmental remediation liabilities, such as inflation rates, judicial decisions, and enacted changes in legislation affecting remediation methods or definitions of hazardous substances.

c. Consider whether there are additional key factors or alternative assumptions about the factors. Key factors that might be considered include—

- Information about environmental remediation liabilities included in the response to the inquiry of the entity's lawyer.
- Studies or reports by environmental consultants.
- Reports, notices, or correspondence issued by regulatory authorities.

d. Evaluate whether the assumptions are consistent with each other, the supporting data, relevant historical data, and industry data. Assumptions that might be evaluated include—

- Allocations of remediation responsibilities (and consequently the attendant liabilities) among PRPs.
- Remediation technologies and expected time frames.
- Postclosure monitoring requirements.

e. Analyze historical data used in developing the assumptions to assess whether the data are comparable and consistent with data of the period under audit, and consider whether the data are sufficiently reliable for this purpose. Factors to consider include—

- Whether the entity's current process for estimating environmental remediation liabilities has resulted in reasonably accurate, appropriate estimates in prior periods, and the extent to which current data indicate changes from prior experience.
- Whether changes in the entity's business have been factored into the estimate.
- Relationships between estimates of liabilities for one location and estimates or actual costs incurred for similar locations.

f. Consider whether changes in the business or industry may cause other factors to become significant to the assumptions.

g. Review available documentation of the assumptions used in developing the accounting estimates and inquire about any other plans, goals, and objectives of the entity, as well as consider their relationship to the assumptions. Consider the following, for example:

- Practices concerning the resolution of environmental contingencies that may have a significant effect on the entity's ultimate environmental remediation liability (for example, a practice of vigorously contesting remediation plans proposed by regulators as opposed to a practice of tacitly accepting those plans)
- Plans to sell, dispose of, or abandon specific facilities
- Financial statements or other information used by management to assess participating PRPs' abilities to pay their allocable shares of the estimated environmental remediation liability

h. Consider using the work of a specialist regarding certain assumptions.

i. Test the calculations used by management to translate the assumptions and key factors into the accounting estimate.

Developing an Independent Expectation of the Estimate

C-19. The auditor may decide to develop an independent expectation of the estimate of environmental remediation liabilities generally by using the work of an environmental specialist. For example, the auditor might use this approach if management has not engaged or employed an environmental specialist, or to assess the reasonableness of, or the effects of alternative key factors and assumptions on, an estimate prepared by a specialist engaged or employed by management.

Using the Work of a Specialist

C-20. Because of the complexity of environmental remediation activities and the difficulties involved in developing estimates of environmental remediation liabilities, management often will engage or employ a specialist to perform this work. Examples of such specialists are remediation technologies specialists, responsibility allocation specialists, claims specialists, environmental engineers, and environmental attorneys.

C-21. Specialists might be involved in one or more stages of the process of developing estimates of environmental remediation liabilities, including—

- Identifying situations for which remediation is required.
- Designing or recommending a remedial action plan for the entity.
- Gathering and analyzing data on which to base the estimates of remediation costs (for example, performing a baseline risk assessment).
- Providing information to management that will enable management to estimate the entity's environmental remediation liability and develop the related financial statement disclosures.

C-22. As noted previously, the process of estimating environmental remediation liabilities usually is complex and involves many subjective judgments. Consequently, the auditor may decide to use the work of a specialist to evaluate financial statement assertions about environmental remediation liabilities. SAS No. 73, *Using the Work of a Specialist*, provides guidance to the auditor who uses the work of a specialist in performing an audit.

C-23. *Qualifications and Work of a Specialist.* SAS No. 73 also provides guidance on matters the auditor should consider when evaluating the professional qualifications of a specialist to determine whether the specialist possesses the necessary skill or knowledge in a particular field. The specialist's level of skill or knowledge should be commensurate with the nature and complexity of the entity's environmental remediation liabilities that the specialist has been asked to address. Matters that might be relevant in evaluating the professional qualifications of a specialist include—

- Knowledge of various remediation technologies, including their acceptability, strengths, weaknesses, and applicability.
- Knowledge of environmental remediation issues that are likely to affect the entity, including legal, regulatory, industry, and social developments.
- Technical or educational background related to environmental remediation matters.

- Work experience related to environmental remediation matters.

C-24. The auditor should obtain an understanding of the nature of the work performed or to be performed by the specialist. That understanding should include—

- The objectives and scope of the specialist's work, for example, whether the specialist is engaged to perform a baseline risk assessment or a feasibility study.
- The specialist's relationship to the entity, if any.
- The methods and assumptions used by the specialist, including, for example, a comparison of the methods and assumptions used by the specialist with those used by management or other specialists, or with those used in the preceding period.
- The appropriateness of using the specialist's work for the intended purpose. In some cases, the auditor may decide it is necessary to contact the specialist to determine whether the specialist is aware that his or her work will be used for evaluating assertions in the financial statements.
- The form and content of the specialist's findings, for example, the extent of detail included or to be included in the report.

Reports issued by environmental specialists are not standard in their form or content and do not always clearly express the underlying assumptions or methods used by the specialist. Communication with the specialist in these circumstances may assist the auditor in obtaining the necessary understanding.

C-25. *The Specialist's Relationship to the Entity.* If a specialist is employed by an entity, or otherwise has a relationship that might directly or indirectly influence the findings of the specialist, the auditor should assess the risk that the specialist's objectivity might be impaired. Factors that the auditor might consider when determining whether the specialist's objectivity might be impaired include the auditor's prior experience with the specialist, discussions with the specialist and management, and additional information about the specific nature and significance of the relationship. If the auditor concludes that the specialist's objectivity might be impaired, the auditor should perform additional procedures with respect to the specialist's work, for example, engaging another specialist to review some or all of the related specialist's work.

C-26. *Using the Findings of the Specialist.* The specialist is responsible for the appropriateness and reasonableness of the methods and assumptions used and for their application. However, the auditor should (*a*) obtain an understanding of the methods and assumptions used by the specialist, (*b*) make appropriate tests of data provided to the specialist, taking into account the auditor's assessment of control risk, and (*c*) evaluate whether the specialist's findings support the related financial statement assertions.

C-27. If the auditor concludes that the specialist's findings are unreasonable, the auditor should apply additional procedures that may include obtaining the opinion of another specialist.

Auditing Potential Recoveries

C-28. Potential claims for recovery from insurers, PRPs other than participating PRPs, prior property owners, and governmental or third-party funds

should be evaluated separately from the environmental remediation liability. To evaluate whether the recovery of a potential claim is probable, correspondence or communication with others such as the insurer, PRPs other than participating PRPs, or legal counsel generally is necessary. Requests for confirmation of recoverable amounts from such parties should be carefully designed to ensure that the parties fully understand what is being requested. Also, because confirmations do not necessarily provide sufficient evidence regarding the realizability of such amounts, the auditor may need to obtain other evidence to evaluate the realizability of recorded recoverable amounts. As noted in paragraph .141 of this SOP, if a claim is the subject of litigation, a rebuttable presumption exists that realization of the claim is not probable. SAS No. 67, *The Confirmation Process*, provides guidance to the auditor about the confirmation process in audits performed in accordance with GAAS.

Inquiries of a Client's Lawyer

C-29. The auditor should consider requesting information about environmental remediation liabilities and loss contingencies in the letter of inquiry sent to the entity's counsel because such matters frequently involve litigation. The letter of inquiry of a client's lawyer should include a list prepared by management (or a request by management that the lawyer prepare a list) that describes each of the matters the lawyer is currently handling and the expected outcomes of those matters. SAS No. 12, *Inquiry of a Client's Lawyer Concerning Litigation, Claims, and Assessments*, provides guidance on the procedures an auditor should consider performing to identify litigation, claims, and assessments and to satisfy himself or herself as to the financial reporting and disclosure of such matters.

Client Representations

C-30. The auditor should consider obtaining written representations from management about estimates and disclosures of environmental remediation liabilities and loss contingencies affecting the financial statements, including specific representations as to the adequacy of such disclosures and the expected outcomes of uncertainties. SAS No. 19, *Client Representations,* provides guidance to the auditor about representations to be obtained from management as part of an audit.

Assessing Disclosures

C-31. Guidelines for disclosure related to environmental remediation liabilities and loss contingencies are presented in chapter 7 of this SOP. SAS No. 32, *Adequacy of Disclosure in Financial Statements,* requires the auditor to assess the adequacy of disclosures of material matters in the financial statements in connection with rendering an opinion on the presentation of financial statements in conformity with GAAP. In the context of environmental remediation loss contingencies, the auditor should evaluate management's assessment of the likelihood of loss and ability to reasonably estimate the potential loss. If disclosure is required, the auditor should assess the adequacy of the disclosures, including any conclusions expressed by management regarding the expected outcome of such contingencies, based on evidence obtained, as applicable, from the following:

- Operating, environmental, legal, and financial management personnel
- Specialists

- Other audit tests

Evaluating Audit Test Results

C-32. The auditor should evaluate the results of tests of the environmental remediation liabilities and related disclosures in the context of the entity's financial statements taken as a whole. Other auditing literature that provides guidance on evaluating the results of audit tests includes SAS No. 53, *The Auditor's Responsibility to Detect and Report Errors and Irregularities,* which provides guidance on the evaluation of audit test results, and paragraph 29 of SAS No. 47, which provides additional guidance on the auditor's responsibility for evaluating the reasonableness of estimates in relationship to the financial statements taken as a whole.

Reporting

C-33. Departures from GAAP or scope limitations related to environmental remediation liabilities or loss contingencies may require modification of the auditor's standard report on an entity's financial statements. SAS No. 58, *Reports on Audited Financial Statements,* provides guidance to the auditor on reporting when there is a GAAP departure or a scope limitation.

Departures From GAAP

C-34. Departures from GAAP involving environmental remediation liabilities or loss contingencies generally involve (1) inadequate disclosures, (2) the application of inappropriate accounting principles, or (3) unreasonable accounting estimates. The auditor should determine whether the presentation and disclosure of an environmental remediation liability or the disclosure of an uncertainty involving an environmental remediation loss contingency complies with the guidance in chapter 7 of this SOP. The auditor should also assess the appropriateness of the accounting policies used and the reasonableness of the estimates. Chapters 5 and 6 of this SOP present the accounting principles for the recognition and measurement of environmental remediation liabilities. If the auditor concludes that the financial statements are not fairly presented in all material respects because the accounting principles followed are inappropriate or misapplied, the disclosures are inadequate, or management's estimates are unreasonable, the auditor should express a qualified or adverse opinion.

Scope Limitations

C-35. The auditor should consider whether he or she has obtained sufficient competent evidential matter to support management's assertions about environmental remediation liabilities and loss contingencies and their presentation and disclosure in the financial statements. The auditor should distinguish between situations involving uncertainties and those involving scope limitations. An uncertainty exists if resolution of the environmental remediation loss contingency is expected to occur at a future date at which time conclusive evidential matter concerning the outcome of the uncertainty is expected to become available. However, if sufficient evidential matter currently exists or did exist but is not available to the auditor because of restrictions imposed by management, inadequate recordkeeping, or other conditions that prevent the auditor from gaining access to the information, a limitation on the scope of the auditor's work may exist sufficient to cause the auditor to qualify or disclaim an opinion because of a scope limitation.

Making Reference to a Specialist

C-36. Use of specialists is common in the determination and development of financial statement estimates of environmental remediation liabilities and disclosures related to environmental remediation loss contingencies. SAS No. 73 provides the auditor with guidance on considering the effect of the specialist's work on the auditor's report. That guidance precludes the auditor from referring to the work of a specialist in the auditor's report, because such reference might be interpreted as a qualification of the auditor's opinion or a division of responsibility, neither of which is intended. However, the guidance permits the auditor to refer to the specialist in the auditor's report if the auditor believes such reference will facilitate an understanding of the reason for a departure from an unqualified opinion.

Accounting Changes

C-37. As indicated in paragraph .102 of this SOP, the effect of initially applying the provisions of this SOP may have elements of a change in accounting principle that are inseparable from a change in accounting estimate; accordingly, the effect shall be reported as a change in accounting estimate. If the initial application of the accounting guidance in this SOP has a material effect on the comparability of the financial statements, an explanatory paragraph should be added to the auditor's report pursuant to paragraph 12 of SAS No. 1, section 420, *Consistency of Application of Generally Accepted Accounting Principles.*

Communication With Audit Committees

C-38. SAS No. 61, *Communication With Audit Committees,* provides the auditor with guidance on the types of matters related to the scope and results of the audit that should be reported to the audit committee or those of equivalent authority and responsibility. Such matters include management judgments and accounting estimates. The auditor should determine whether the audit committee is informed about the process used by management in formulating particularly sensitive accounting estimates, such as those for environmental remediation liabilities, and the basis for the auditor's conclusions regarding the reasonableness of the estimates.

Appendix D

Response to Comments Received

D-1. An exposure draft of a proposed SOP, *Environmental Remediation Liabilities (Including Auditing Guidance),* was issued for public comment on June 30, 1995. More than seventy comment letters were received in response to the exposure draft.

D-2. The majority of the comments related to the measurement of environmental remediation liabilities. A significant number of commentators also expressed concerns about a lack of symmetry in the measurement of the remediation liability and of any probable recoveries, about the proposed SOP's scope, and about the proposed transition provisions and effective date of the SOP. Some commentators also suggested that, because environmental remediation liabilities is a broad topic, it should be addressed by the FASB rather than the Accounting Standards Executive Committee (AcSEC).

D-3. These comments and AcSEC's responses to them are discussed below.

Scope

D-4. The exposure draft excluded from its scope accounting for remediation actions that are undertaken at the sole discretion of management and that are not induced by the threat of litigation or assertion of a claim or an assessment. A number of commentators recommended expanding the scope to include such actions, with the majority of them recommending that the SOP specifically permit or require the recording of a liability for voluntary remediation programs when management intends to undertake such programs.

D-5. AcSEC continues to believe that such remediation actions should be outside the scope of this SOP. AcSEC believes that addressing the issues would require a far broader project than this SOP was intended to be. Such a broader project would possibly need to be undertaken by the FASB rather than AcSEC since it might require reconsideration of the liability-recognition model established by FASB Statement No. 5, *Accounting for Contingencies.* Moreover, AcSEC believes this SOP, with its relatively narrow scope, will produce significant improvements in practice that should not be delayed unnecessarily.

Measurement of the Liability

D-6. The exposure draft provided that the measurement of the liability should include the following:

a. Incremental direct costs of the remediation effort

b. Costs of compensation and benefits for employees to the extent an employee is expected to devote time directly to the remediation effort

The exposure draft defined the remediation effort to include, among other things, the costs of defending against assertions of liability for remediation.

D-7. Many commentators stated that payroll and payroll-related costs, including the costs of in-house legal counsel, should be treated as period costs rather than being included in the measurement of the environmental remediation liability. Among the reasons cited were the following.

- Because environmental-affairs, technical, and legal personnel who devote time to the remediation effort would be employed by an entity even in the absence of an obligation to remediate a particular site, devoting a portion of their time to a particular site does not represent a sacrifice of economic benefits.
- Salaries and related costs that are not inventoriable generally are treated as period costs; such costs generally are not accrued as part of other kinds of liabilities.
- The cost of estimating and tracking this element of the accrual would be burdensome.
- Whether such costs should be included in the measurement of the liability should be considered by the FASB because of its implications to areas beyond environmental liabilities.

D-8. In addition, many commentators said that the cost of defending against assertions of liability, regardless of whether the defense is to be performed by in-house counsel or outside counsel, should be treated as a period cost. Among the reasons cited were the following.

- Costs of defending against assertions of liability are discretionary and, therefore, do not have one of the essential characteristics of a liability set forth in FASB Concepts Statement No. 6, *Elements of Financial Statements.*
- Such costs may be incurred before it can be determined whether a remediation liability exists.
- The guidance inevitably would be analogized to other kinds of liabilities. Accordingly, it would represent a *de facto* Interpretation of FASB Statement No. 5 that should be exposed and debated as such.

D-9. AcSEC believes that devoting the time of employees to a particular activity, by definition, represents a sacrifice of economic resources. AcSEC acknowledges that, in most situations, compensation and benefits for employees who are not involved with production of inventory are treated as a period cost. AcSEC believes, however, that the measurement of an environmental remediation liability should be based on the cost that will be incurred to extinguish the liability and that the measurement should not vary significantly merely because an entity chooses to satisfy elements of the liability using employees rather than outside contractors. The need to include internal costs in the measurement of a liability is addressed explicitly in various items of authoritative literature. FASB Statement No. 106, *Employers' Accounting for Postretirement Benefits Other Than Pensions,* states in footnote 15, "If significant, the internal and external costs directly associated with administering the postretirement benefit plan also should be accrued as a component of assumed per capita claims costs." FASB Statement No. 60, *Accounting and Reporting by Insurance Enterprises,* states in paragraph 20, "A liability for all costs expected to be incurred in connection with the settlement of unpaid claims (claim adjustment expenses) shall be accrued when the related liability for unpaid claims is accrued. . . . Claim adjustment expenses also include other costs that cannot be associated with specific claims but are related to claims paid or in the process of settlement, such as internal costs of the claims function." SOP 81-1, *Accounting for Performance of Construction-Type and Certain Production-Type Contracts* [section 10,330], states in paragraph 87 [section 10,330.87] that a provision for anticipated losses on contracts should include all costs of the type

allocable to contracts under paragraph 72 of that SOP [section 10,330.72]. Paragraph 72 of SOP 81-1 [section 10,330.72] states that such costs include all direct costs, such as material, labor, and subcontracting costs, and the following indirect costs: the costs of indirect labor, contract supervision, tools and equipment, supplies, quality control and inspection, insurance, repairs and maintenance, depreciation and amortization, and, in some circumstances, support costs, such as central preparation and processing of payrolls.

D-10. Finally, AcSEC considered accounting literature that provides that certain internal cost be deferred or capitalized rather than treated as a period expense. FASB Statement No. 91, *Accounting for Nonrefundable Fees and Costs Associated with Originating or Acquiring Loans and Initial Direct Costs of Leases,* provides that direct loan-origination costs of a completed loan are to be offset against loan-origination fees and any excess deferred. Direct loan-origination costs include incremental direct costs incurred in transactions with independent third parties and certain costs directly related to specified activities performed by the lender. The costs directly related to those activities include only that portion of the employees' total compensation and payroll-related fringe benefits directly related to time spent for the origination of the loan.

D-11. AcSEC was concerned, however, that the requirement to include in the measurement of the environmental remediation liability the costs of compensation and benefits for all employees who are expected to devote time to the remediation effort would create an unjustified record keeping burden on reporting entities. Accordingly, the approach used in the SOP limited the inclusion of nonincremental direct costs to the costs of compensation and benefits for those employees who are expected to devote a *significant amount* of time directly to the remediation effort. AcSEC believes this approach will produce sound and useful reported information at a reasonable cost. As discussed in the SOP, the remediation effort does not include routine environmental compliance matters and costs involved with potential recoveries. Also, indirect internal costs such as administrative and occupancy costs are not included in the measurement of the environmental remediation liability.

D-12. AcSEC believes the cost associated with including the appropriate compensation and benefit costs in the measurement of the liability will not be excessive. In this regard, AcSEC notes that in many cases periodic adjustment of the liability could be performed by reestimating this component of the liability and that this SOP does not impose an obligation to use formal procedures such as time sheets for the development of the liability and to track the actual expenditures.

D-13. AcSEC acknowledges that the treatment of costs to defend against assertions of this and other kinds of liability is diverse: Some include such costs in the measurement of a liability for a loss contingency under FASB Statement No. 5, while the majority of practice treats litigation costs as period costs. AcSEC believes that any authoritative guidance on the treatment of such costs should be developed as a broad issue with appropriate due process. AcSEC, therefore, concluded not to provide guidance on inclusion of the cost of defense against assertions of liability in the measurement of the environmental remediation liability. Costs to defend against assertions of liability in the context of environmental remediation liabilities involve determining whether an entity is responsible for participating in a remediation process. Legal costs involved with determining (*a*) the extent of remedial actions that are required, (*b*) the type of remedial actions to be used, and (*c*) the allocation of costs among PRPs are not part of the cost to defend against assertions of liability and are to be included in the measurement of the environmental remediation liability.

D-14. The exposure draft provided that current measurements of the liability ". . . should be based on remediation technology that exists currently." Certain commentators agreed with this conclusion. In their opinions, the nature of the remediation effort was sufficiently different from liabilities for closure or removal of long-lived assets that a difference in anticipating changes in technology was justified.

D-15. Some commentators concluded that differences between the guidance in the exposure draft concerning anticipation of advances in technology and the FASB's tentative conclusions concerning anticipation of advances in technology in its project on accounting for certain liabilities related to closure or removal of long-lived assets (formerly nuclear decommissioning) should be resolved. These commentators did not always express a preference.

D-16. The majority of commentators suggested that to ignore advances in technology is unrealistic and recommended that changes in technology that are reasonable and that can be supported should be allowed to be considered in determining the remediation liability. FASB Statement No. 106 was cited as an example of authoritative literature that permits consideration of anticipated changes in technology.

D-17. AcSEC acknowledges that, by restricting remediation technologies to those currently available, realistic developments in technology that could substantially reduce the ultimate obligation would be ignored. This approach would be inconsistent with the objective of reporting, in the financial statements, a liability that represents the most likely amount to be paid. Further, AcSEC agrees that the FASB's approach in Statement No. 106 to estimating postemployment health care costs demonstrates the acceptability of anticipating realistic changes in technology when estimating future costs that are affected significantly by technological advances.

D-18. AcSEC believes that information regarding expected advances in remediation technologies is considered routinely by environmental engineers and consultants as they evaluate the effectiveness and cost of alternative remediation strategies. AcSEC acknowledges the inherent uncertainty involved in anticipating developments in technology but concluded that acceptable constraints would be placed on this uncertainty by requiring that advances be considered only to the extent that the entity has a reasonable basis to expect that a remediation technology will be approved. Further, this uncertainty becomes resolved at such time as a record of decision is issued since, at that stage in the process, the remediation technology to be used is defined. Accordingly, AcSEC modified its original position to require that the estimated liability be measured based on the technology that is expected to be approved to remediate the site.

D-19. Paragraph .131 of the SOP states: "In situations in which it is not practicable to estimate inflation and such other factors [productivity improvements] because of uncertainty about the timing of expenditures, a current-cost estimate would be the minimum in the range of the liability to be recorded until such time as these cost effects can be reasonably estimated." That guidance is different from the guidance proposed in the FASB's May 31, 1996, exposure draft of a Proposed Statement of Financial Accounting Standards, *Accounting for Certain Liabilities Related to Closure or Removal of Long-Lived Assets,* which provides that, in determining the estimated future cash outflows that will be required to satisfy closure or removal obligations, current-cost estimates should be adjusted for inflation in all cases. AcSEC believes the difference is

justified, because the degree of timing uncertainty that exists concerning some environmental remediation liabilities is significantly greater than the degree of timing uncertainty that typically exists concerning closure or removal liabilities.

D-20. For example, an entity may know that a remedial action for which it has a liability could begin within, say, one year of the reporting date. The entity may also know that, for reasons such as disagreements among potentially responsible parties over their relative responsibility for the site and the methodology to be used at the site, it is equally likely that remedial action will not begin for five, or perhaps ten, years. In such circumstances, consideration of the effects of inflation and of productivity improvements in the measurement of the liability would require an arbitrary assumption about when the remedial action will begin, which would diminish the reliability of the measurement and the usefulness of the reported information.

D-21. Although timing uncertainties also often exist in closure situations (concerning the end of the useful life of a long-lived asset, which is when cash outflows for closure or removal of a long-lived asset would occur), those uncertainties tend to concern periods that are more distant from the measurement date. This factor mitigates the effects of such uncertainties.

D-22. AcSEC believes that, in the context of environmental remediation liabilities, using a current cost estimate until there is a basis for estimating productivity improvements and the timing of the satisfaction of the liability will result in reported information that has the characteristics of usefulness and reliability.

D-23. Uncertainties are pervasive in the measurement of environmental remediation liabilities, and the SOP's approach to addressing those uncertainties is to require reporting entities to recognize their best estimate at the particular point in time (or, if no best estimate can be made, the minimum estimate) of their share of the liability and to refine their estimate as events in the remediation process occur. The guidance provided in this SOP—that an undiscounted current cost estimate would be the minimum in the range of the liability to be recognized until such time as a better estimate can be made—is consistent with that approach.

Measurement of Probable Recoveries

D-24. The exposure draft required discounting of recovery assets in all circumstances. Many commentators expressed concerns that that guidance, in combination with the SOP's guidance concerning discounting of liabilities, produced counterintuitive results when applied, for example, to fully insured liabilities. AcSEC agreed with commentators that the measurement of some recovery assets should be symmetrical with the measurement of the related liability. AcSEC noted that, in FASB Statement No. 113, *Accounting and Reporting for Reinsurance of Short-Duration and Long-Duration Contracts,* the FASB provided for the measurement of reinsurance receivables on a basis symmetrical to that of the liability. Accordingly, AcSEC concluded that probable recoveries should be measured at their undiscounted amounts if (*a*) the liability is not discounted and (*b*) the timing of the recovery is dependent on the timing of the payment of the liability. This second criterion—dependency of the timing of the recovery on the timing of the payment of the liability—would usually be met, for example, if an insurance company agrees, in accordance with

the terms of an insurance contract, to reimburse the reporting entity for all or a percentage of the remediation costs incurred by the reporting entity as the reporting entity expends money to satisfy its obligation, whereas the criterion likely would not be met, for example, in a lump-sum buyout by an insurance company of contested coverage.

Relationship of the Guidance in This SOP to FASB Statement No. 121

D-25. This SOP addresses the recognition of environmental remediation liabilities and explicitly does not address the recognition of asset impairment. FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of,* provides guidance on the recognition and measurement of impairment of long-lived assets. Under FASB Statement No. 121, an entity determines whether a long-lived asset is impaired by comparing the expected future cash flows (undiscounted and without interest charges) from the use and eventual disposition of the asset to the asset's carrying amount. If the asset is determined to be impaired, the impairment loss is measured as the amount by which the carrying amount of the asset exceeds the fair value of the asset.

D-26. FASB Statement No. 121 does not address explicitly cash flows related to environmental remediation that may be associated with a long-lived asset. The EITF reached a consensus in Issue No. 95-23, *The Treatment of Certain Site Restoration/Environmental Exit Costs When Testing a Long-Lived Asset for Impairment,* that future cash flows for environmental exit costs that are associated with a long-lived asset and that have been recognized as a liability should be excluded from the undiscounted expected future cash flows used to test the asset for recoverability under Statement No. 121. However, EITF Issue No. 95-23 relates only to environmental exit costs that may be incurred if a long-lived asset is sold, is abandoned, or ceases operations. It does not address the appropriate treatment of cash outflows to satisfy the environmental remediation liabilities that are the subject of this SOP when an asset would continue operating. AcSEC believes guidance should be developed to address the recognition test under FASB Statement No. 121 and the measurement of impairment under the Statement when an environmental remediation liability associated with a long-lived asset has been recognized pursuant to this SOP. The guidance should avoid consideration of the effect of the environmental remediation obligation twice.

Disclosures

D-27. A number of commentators said the disclosures that are encouraged, but not required, by the SOP should be mandatory. Those commentators believe that the encouraged disclosures provide valuable, or even essential, information to users of the financial statements.

D-28. AcSEC believes the encouraged disclosures will enhance the usefulness of financial statements as tools for decision making. AcSEC recognizes, however, that the FASB is undertaking a project on disclosure effectiveness and decided that it would be inappropriate to impose new disclosure requirements concerning environmental remediation liabilities at this time. Accordingly, the SOP imposes no disclosure requirements that go beyond the requirements of existing authoritative literature.

Transition

D-29. A number of commentators said that the effect of initially applying the SOP should be reported in a manner similar to the cumulative effect of a change in accounting principle. A number of those commentators believe the SOP's guidance on what elements should be included in the accrual; on estimation of the liability in the strict, joint and several, and retroactive legal scheme of environmental remediation liabilities; and on accrual of estimates of components of the overall liability before the overall liability can be reasonably estimated constitute significant new guidance that would result in a change in the application of an accounting principle and should be accounted for as such. Some of those commentators believe that, although in individual cases the effect of applying the SOP would have elements of a change in the application of an accounting principle and of a change in an accounting estimate, the entire change should be reported as a change in accounting principle because that is the predominant characteristic of the change. AcSEC rejected those arguments because treating the effect of initially applying the SOP as a change in accounting principle would directly contradict APB Opinion No. 20, *Accounting Changes,* paragraph 32, which states in part:

> A change in accounting estimate that is recognized in whole or in part by a change in accounting principle should be reported as a change in an estimate because the cumulative effect attributable to the change in accounting principle cannot be separated from the current or future effects of the change in estimate.

Coordination With the FASB

D-30. A number of commentators expressed the view that, because the accounting and reporting issues embraced by the scope of this SOP are of such a broad nature, the FASB rather than AcSEC should address them. AcSEC notes that it coordinates its efforts with the FASB throughout the process of developing an SOP. This coordination begins when AcSEC sends a prospectus that describes a possible project to the FASB. That prospectus is discussed at a public board meeting and, if no more than two FASB members object to having AcSEC take on the project, the project can proceed.

D-31. The criteria considered by the FASB in clearing AcSEC's prospectuses include the following:

- The project does not conflict with current or proposed accounting requirements, unless it is a limited circumstance that is adequately justified.
- The project will result in an improvement in practice.
- The AICPA has demonstrated a need for the project.
- The benefits of any SOP are expected to outweigh the costs of applying it.

D-32. All AcSEC meetings are open to the public, and an FASB representative generally attends all AcSEC meetings. The FASB also clears AcSEC exposure drafts and final SOPs at public board meetings before their promulgation. In connection with clearing the final SOP, the FASB is provided with copies of all comment letters received by AcSEC.

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Appendix E

Acronyms

ARAR	Applicable or relevant and appropriate requirement
BACT	Best available control technology
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (Also referred to as Superfund, together with SARA)
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
DMR	Discharge monitoring report
EPCRA	Emergency Planning and Community Right-to-Know Act (also referred to as SARA title III)
LAER	Lowest achievable emission rate
MSDS	Material safety data sheet
NAAQS	National ambient air quality standards
NPDES	Nation Pollutant Discharge Elimination System
NPL	National Priorities List
NSPS	New source performance standards
POTW	Publicly owned treatment works
PRAP	Proposed remedial action plan
PRP	Potentially responsible party
PSD	Prevention of significant deterioration
RCRA	Resource Conservation and Recovery Act
RFA	RCRA facility assessment
RFI	RCRA facility investigation
RI/FS	Remedial investigation/feasibility study
ROD	Record of Decision
SARA	Superfund Amendments and Reauthorization Act of 1986 (together with CERCLA, also referred to as Superfund)
SWMU	Solid waste management unit
TSCA	Toxic Substances Control Act
TSDF	Treatment, storage, or disposal facility
UST	Underground storage tank

Glossary

Administrative record. Related to Superfund and EPCRA: all documents containing information the government uses to select response actions and impose administrative sanctions relating to CERCLA and Title III of SARA, the Emergency Planning and Community Right-to-Know Act. This paper trail includes correspondence, the RI/FS, the Record of Decision, and public comments. SARA appears to limit judicial review of the adequacy of a response action to the administrative record.

Applicable or Relevant and Appropriate Requirements (ARARs). ARARs include the federal standards and more stringent state standards that are legally applicable or relevant and appropriate under the circumstances. ARARs include cleanup standards, standards of control, and other environmental protection requirements, criteria, or limitations. RCRA has frequently been used as an ARAR for remediation of Superfund sites.

Baseline risk assessment. Related to Superfund and RCRA: the qualitative and quantitative evaluation performed in an effort to define the risk posed to human health, the environment, or both by the presence or potential presence, use, or both of specific pollutants. Baseline risk assessments are performed as part of the RI/FS process under Superfund and as part of the RCRA facility investigation in RCRA corrective actions.

Closure. Related to RCRA: the process in which the owner-operator of a hazardous waste management unit discontinues active operation of the unit by treating, removing from the site, or disposing of on site all hazardous wastes in accordance with an EPA- or state-approved plan. Included, for example, are the process of emptying, cleaning, and removing or filling underground storage tanks (USTs) and the capping of a landfill. Closure entails specific financial guarantees and technical tasks that are included in a closure plan and must be implemented.

Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) or CERCLA Information System. A database maintained by the U.S. EPA and the states that lists sites where releases have either been addressed or need to be addressed. CERCLIS consists of three inventories: CERCLIS Removal Inventory, CERCLIS Remedial Inventory, and CERCLIS Enforcement Inventory. Within the three inventories are inactive and active release sites. Inactive release sites are those sites where no further action is needed. Active release sites are those sites that may have an ongoing response action; that may not yet have been addressed by the EPA, but are scheduled for future action; or that may have been addressed and are targeted for further investigation of environmental impacts.

Consent decree. A legal document, approved by a judge, that formalizes an agreement reached between the EPA and potentially responsible parties (PRPs) through which PRPs will conduct all or part of a remedial action at a Superfund site; cease or correct actions or processes that are polluting the environment; or otherwise comply with regulations where PRPs' failure to comply caused the EPA to initiate regulatory enforcement actions. The consent decree describes the actions PRPs will take and may be subject to a public comment period.

Containment. Measures taken to prevent the migration of, or exposure of humans or the environment to, hazardous substances. Containment includes, for example, the construction of dikes, trenches, ditches, fences, underground barrier walls, surface caps, and groundwater pumping facilities as well as monitoring to ensure the integrity of the containment system.

Corrective action. Related to RCRA: action to remedy releases from hazardous waste management units, or any other sources of releases at or from a TSDF.

Disposal. Related to CERCLA and RCRA: under RCRA, the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters. Similarly under CERCLA with regard to hazardous substances.

Hazardous substance. Related to Superfund: the definition of hazardous *substance* in CERCLA is broader than the definition of hazardous *wastes* under RCRA. Under CERCLA, a hazardous substance is any element, compound, mixture, solution, or substance that, when released to the environment, may present substantial danger to the public health or welfare or to the environment. It also includes (1) specifically designated substances; (2) toxic pollutants under the Federal Water Pollution Control Act; (3) hazardous wastes having the characteristics identified under or listed pursuant to RCRA (excluding any waste suspended from regulation under the Solid Waste Disposal Act by Congress); (4) hazardous air pollutants under the Clean Air Act; and (5) any imminently hazardous chemical substance or mixture for which the government has taken action under section 7 of the Toxic Substances Control Act. Petroleum (including crude oil not otherwise specifically listed or designated as a hazardous substance under any of the above laws), natural gas, natural gas liquids, liquefied natural gas, or synthetic gas useable for fuel (or mixtures of natural gas and such synthetic gas) are excluded.

Hazardous waste. Related to RCRA: a waste, or combination of wastes, that because of its quantity, concentration, toxicity, corrosiveness, mutagenicity or inflammability, or physical, chemical, or infectious characteristics may (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. Technically, those wastes that are regulated under RCRA 40 CFR Part 261.

Hazardous waste constituent. A constituent that caused the waste to be listed as a hazardous waste under 40 CFR Part 261 Subpart D.

National Priorities List (NPL). The EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System. The EPA is required to update the NPL at least once a year.

Orphan share. Equitable share of liability for response or remediation costs attributed to orphan-share PRPs, or the amount by which the equitable share of liability for response or remediation costs attributable to other parties exceeds the amount for which those parties have settled their liability.

Orphan-share PRP. An identified PRP that cannot be located or that is insolvent.

Orphan site. A Superfund site where all identified potentially responsible parties no longer exist or are insolvent.

Participating PRP. A party to a Superfund site that has acknowledged potential involvement with respect to the site. Also referred to as a *player*.

Potentially responsible party (PRP). Any individual, legal entity, or government—including owners, operators, transporters, or generators—potentially responsible for, or contributing to, the environmental impacts at a Superfund site. The EPA has the authority to require PRPs, through administrative and legal actions, to remediate such sites.

Recalcitrant PRP. A party whose liability with respect to a Superfund site is substantiated by evidence, but that refuses to acknowledge potential involvement with respect to the site. Also referred to as a *nonparticipating PRP*.

Release. Related to Superfund: any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment. Includes the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance, pollutant, or contaminant. The law provides for several exclusions. Release also means the substantial threat of release.

Remedial action, remediation. Related to Superfund: generally long-term actions taken to (*a*) investigate, alleviate, or eliminate the effects of a release of a hazardous substance into the environment; (*b*) investigate, alleviate, or eliminate a threat of the release of an existing hazardous substance that could potentially harm human health or the environment; or (*c*) restore natural resources. Also used in this SOP to refer to corrective action under RCRA.

Remedial investigation/feasibility study (RI/FS). Extensive technical studies conducted by the government or by the PRPs to investigate the scope of site impacts (RI) and determine the remedial alternatives (FS) that, consistent with the National Contingency Plan, may be implemented at a Superfund site. Government-funded RI/FSs do not recommend a specific alternative for implementation. RI/FSs conducted by PRPs usually do recommend and technically support a remedial alternative. An RI/FS may include a variety of on- and off-site activities, such as monitoring, sampling, and analysis.

Removal, removal action. Under CERCLA, generally short-term actions taken to respond promptly to an urgent need. The cleanup or removal of released hazardous substances from the environment; actions in response to the threat of release; actions that may be necessary to monitor, assess, and evaluate the release or threat; disposal of removed material; or other actions needed to prevent, minimize, or mitigate damage to public health

or welfare or to the environment. Removal also includes, without being limited to, security fencing or other measures to limit access; provision of alternative water supplies; temporary evacuation and housing of threatened individuals not otherwise provided for; and any emergency assistance provided under the Disaster Relief Act.

Response action. Related to Superfund: a broad term encompassing removal, remediation, and containment actions, as well as precleanup and enforcement-related activities.

Solid waste management unit (SWMU). Related to RCRA: any discernible waste management unit from which hazardous constituents may migrate, irrespective of whether the unit was intended for the management of solid or hazardous wastes. The types of units considered SWMUs are landfills, surface impoundments, waste piles, land treatment units, incinerators, injection wells, tanks, container storage areas, waste-water treatment systems, and transfer stations. In addition, areas associated with production processes at facilities that have been affected by routine, systematic, and deliberate releases of wastes (which may include abandoned or discarded products), or hazardous constituents from wastes, are considered SWMUs.

Treatment, storage, or disposal facility (TSDF). Related to RCRA: with some exceptions, any facility that treats hazardous wastes; any facility that stores hazardous wastes, except generators who store their own wastes for less than 90 days for subsequent transport off-site; or any facility that serves to receive hazardous waste and disposes of it.

Unilateral administrative order. Order issued unilaterally by the EPA under section 106(a) of CERCLA to PRPs, or to non-PRPs such as adjacent landowners, requiring them to take a response action. Unilateral administrative orders contain findings of fact and conclusions of law, and they specify the work to be performed and the EPA's right to take over the work in the event of noncompliance, inadequate performance, or an emergency. A unilateral administrative order does not allocate conduct required by the order between individual PRPs; however, the EPA may issue carve-out orders requiring individual PRPs to perform specific actions. Also referred to as a "section 106 order."

Unknown PRP. A party that has liability with respect to a Superfund site, but that has not yet been identified as a potentially responsible party by the U.S. EPA or by an analogous state agency.

Unproven PRP. A party that has been identified as a potentially responsible party for a Superfund site by the U.S. Environmental Protection Agency or by an analogous state agency, but that does not acknowledge potential involvement with respect to the site because no evidence has been presented linking the party to the site. Also referred to as a *hiding-in-the-weeds PRP*.

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