Environmental Accounting: Issues, Reporting And Disclosure

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Abstract

With cleanup costs of hazardous wastes expected to run as high as \$500 billion to \$1 trillion over the next 50 years, environmental reporting and disclosure by firms in the United States during the 2000's will become more prolific. This manuscript seeks to provide an understanding of the magnitude of environmental issues, a brief history of the EPA, discussion of environmental regulatory acts and enforcement, and reporting and disclosure requirements by the SEC and FASB.

Introduction

One of the biggest concerns that firms will face in the 2000's will be reporting and disclosing of environmental issues. By early 1996, the Environmental Protection Agency (EPA) had identified over 36,000 hazardous waste sites in the United States, and the identification of additional sites continues. The EPA estimates that total cleanup costs of all identified hazardous waste sites could run as high as \$500 billion to \$1 trillion over the next 50 years (Jensen and Unger 1991). Interestingly, some of the largest public corporations in the United States have been identified by the EPA as responsible parties.

The 1,405 most seriously contaminated properties have been placed on the National Priorities List (NPL), and are commonly referred to as Superfund sites. From these Superfund sites alone, the EPA has identified more than 15,000 Potentially Responsible Parties (PRPs) (Jensen and Unger 1991). (A PRP is a person or entity designated by the EPA as potentially responsible

for the costs incurred in cleaning up the site(s).) The average cost to clean up a Superfund site is estimated to be \$35 million (Dixon, Drezner, and Hammitt 1993); more troublesome sites could run as high as \$1 billion each (Jensen and Unger 1991). To date, only about 498 of these Superfund sites have been cleaned up totally.

In light of time and resource commitment costs to clean up these hazardous waste sites, the potential impact on some specific entities could be enormous. Accordingly, it is logical that the public would want to know about the existence of any environmental issues for which a reporting entity might be held responsible. With this in mind, the underlying purpose for this manuscript is to provide an understanding of the magnitude of environmental issues in the United States, a brief history of the Environmental Protection Agency, environmental regulatory acts and methods of enforcement by the EPA, and current disclosure requirements for corporations by the Securities and Exchange Commission (SEC) and the Financial Accounting Standards Board (FASB).

Readers with comments or questions are encouraged to contact the authors via email.

Table 1
Hazardous Waste Sites

COMPANY	# of SITES
General Motors	140
Westinghouse	80
Union Carbide	75
Chrysler	64
DuPont	64
Shell Oil	59
Ashland Oil	45
Allied-Signal	44
Monsanto	42
General Electric	41

(Source: Simon 1989).

COMPANY	# of SITES
Texaco	40
PPG Industries	37
BASF	35
Ciba-Geigy	33
ICI	32
Dow	31
Mobil	25
BF Goodrich	25
Rohm & Haas	24
Ford	21

Magnitude of Environmental Pollution

Environmental pollution in the United States is a major issue. In assessing environmental pollution, specifically hazardous wastes, in this country, the EPA made the following statements:

There are approximately 240,000,000 people in the United States. Try to imagine a ton of hazardous waste piled next to each of them, with another ton added each and every year.

Hazardous waste is produced in this country at the rate of 700,000 tons per day. That's 250 million tons per year—enough to fill the Superdome in New Orleans 1,500 times over. (Environmental Protection Agency 1987, p. 14)

Although it is true that the amount of hazardous waste is large, most of this waste is not dumped directly into the environment. Given sufficient incentives, most of the hazardous waste produced probably could be recycled as energy sources or be chemically stabilized.

However, in the past, public corporations were not as knowledgeable about the impact of these hazardous wastes on humans as they are now. Additionally, they lacked sufficient incentives to, and were not required to, properly dispose of hazardous materials. Today, these com-

panies are being forced to address their lack of foresight by acceptance of responsibility and, therefore, liability for past wastes. This liability ultimately leads to disclosure by public corporations. The EPA is the principal federal agency responsible for identifying the companies to be held responsible for these past wastes.

History of the Environmental Protection Agency

President Richard M. Nixon created the Environmental Protection Agency (EPA) as an independent agency of the United States government by an Executive Order entitled "Reorganization Plan 3 of 1970." While most federal agencies have been created by Congress, the creation of an agency by executive order was unique and implied lack of legislative support.

The EPA assumed most of the activities of the Environmental Health Service (EHS), an agency of the Department of Health, Education, and Welfare; the EPA originally was designed to consolidate a variety of governmental activities, including environmental research, monitoring, and enforcement activities into one agency. The EPA is not part of the President's Cabinet, but reports to the President through the Office of Management and Budget (OMB). Considering

the growing importance and visibility of environmental policy in the United States, there is a high probability that the director of the EPA eventually will become a Cabinet member (Vincoli 1993).

Designed to ensure the protection of national environmental health, the EPA has not always received meaningful support from Congress. Early budgets were meager, and the agency's main headquarters in Washington, D.C. was located in an old condominium (once owned by Vice-President Spiro Agnew, who had trouble selling it through regular real estate channels).

Although it received minimal support originally, since its creation two decades ago, the EPA has witnessed a gradual and steady growth in public concern for the environment. During the 1970s, in its first decade of existence, the EPA focused its attention primarily on the implementation of major environmental legislation enacted by Congress. During the next decade, the 1980s, the agency began to turn its attention toward the problem of enforcing its many statutes. Today, environmental concerns have never been higher in the country's social, economic, and political agendas (Vincoli 1993). In addition, there have been several laws passed that are directly concerned with environmental issues.

Environmental Regulatory Acts

Some of the more significant environmental federal regulations in the United States include:

- Clean Air Act (CAA) - 1963 (revised and amended in 1967, 1970, 1972, 1977, and 1990);
- Clean Water Act (CWA) - 1972 (amended in 1977 and 1987);
- Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) - 1949 (amended in 1972 and 1978);
- Hazardous Material Transportation Act (HMTA) - 1975;
- Toxic Substances Act (TSCA) - 1976;

- Resource Conservation and Recovery Act (RCRA) - 1976 (amended in 1980 and 1984);
- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (Superfund) - 1980;
- Superfund Amendments and Reauthorization Act (SARA) - 1986 (amended 1991);
- Hazardous Waste Operations and Emergency Response (HAZWOPER) - 1990;
- Pollution Prevention Act (PPA) - 1990.

Each of these federal acts gives the EPA and other federal agencies the ability to enforce cleanup of abandoned and existing hazardous waste sites and to impose liability on responsible parties to pay for the cleanup.

As the enactment dates of these federal acts indicate, prior to 1970 environmental regulation was limited. Since the creation of the EPA, there has been a substantial increase in environmental awareness by the public that has led directly to a large number of governmental regulations. Each of these environmental acts has contributed directly to our country's overall intent to control hazardous wastes. One of the most significant acts related to environmental issues is the Superfund Act (CERCLA).

Superfund Act

The impetus for what became known as the Superfund Act had its beginnings in Niagara Falls, New York, at an abandoned canal called Love Canal, that flowed into the Niagara River. Between 1942 and 1952, Hooker Chemical Company disposed of more than 21,000 tons of chemicals into the Love Canal. After the canal became full in 1953, it was covered over with earth and clay and deeded over to the Niagara Falls School Board for one dollar. The old canal became a school and a playground, and the vacant land adjacent to the former canal was developed into homes with backyards that bordered the canal.

Table 2
Post-1970 Environmental Regulation Milestones

LEGISLATION	1 9 7 0					1 9 7 5						1 9 8 0						1 9 8 5						1 9 9 0
Clean Air Act (CAA)	•		•				•																	•
Clean Water Act (CWA)			•				•												•					
Federal Insecticide, Fungicide and Rodenticide Act (FIFRA)			•					•																
Hazardous Materials Transportation Act (HMTA)						•																		
Toxic Substances Act (TSCA)							•																	
Resource Conservation and Recovery Act (RCRA)							•					•						•						
Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)												•												
Superfund Amendments and Reauthorization Act (SARA)																			•					
Hazardous Waste Operations and Emergency Response (HAZWOPER)																								•
Pollution Prevention Act (PPA)																								•

(Source: Vincoli 1993).

The Love Canal situation remained quiescent for the most part until 1976, when a joint United States-Canada commission responsible for monitoring the condition of the Great Lakes detected the insecticide Mirex in fish from Lake Ontario. Immediately, the New York Department of Environmental Conservation identified Love Canal as a major contributor.

On August 2, 1978, the New York State Health Commissioner transformed Love Canal from a local problem to a worldwide news event by declaring a public health emergency. Residents, who initially were given the impression

that they would quickly be taken care of, soon became disillusioned as state and federal governments began to consider what should be done and who should pay for it.

In 1979, the EPA became involved in the Love Canal situation; it conducted a site investigation and initiated a series of lawsuits against Hooker Chemical Company. For health reasons (including miscarriages, birth defects, nervous breakdowns, and diseases of the urinary tract), 239 families living on the two streets immediately adjacent to the canal were relocated at state expense. Later, President Carter announced an

emergency at Love Canal and indicated that an additional 700 families would be temporarily relocated at a cost of three to five million dollars (Landy, Roberts, and Thomas 1994).

The furor created in the news media over Love Canal provided a new opportunity to acquire legislative authority for the EPA. Enacted in 1980, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, provides stiff regulatory requirements to address the release of hazardous substances from existing waste sites, as well as contaminations resulting from any future spills of hazardous substances. In 1986, in an attempt to address the EPA's dismal record of CERCLA enforcement, Congress amended CERCLA with the Superfund Amendments and Reauthorization Act (SARA).

Under Superfund as amended, the EPA became responsible for identifying and listing those locations or sites throughout the United States where hazardous substances or wastes either have caused or may cause damage to the environment. By 1991, the EPA had identified approximately 36,000 hazardous waste sites that might require cleanup. At 58 percent of these sites, the EPA determined that the potential harm to human health and the environment was not high enough to warrant federal action. This left approximately 14,000 sites across the nation for possible inclusion in the federal program. These sites were evaluated and prioritized, with those receiving the highest contamination scores being placed on a listing called the National Priorities List (NPL). By the end of 1997, the EPA had placed 1,405 sites on the NPL, of which 127 were federal facilities.

A special fund, the Hazardous Substance Response Trust Fund (Superfund), was established to provide for reimbursement of cleanup costs of NPL sites. The Superfund has four primary funding sources:

- Taxes on petroleum.
- Taxes on 42 listed chemicals, including imported substances derived from those chemicals.
- \$1.25 billion from general tax revenues.
- A broad-based corporate income tax on amounts exceeding \$2 million of alternative minimum taxable income. (Vincoli 1993, p. 158)

CERCLA charges the EPA with the responsibility of forcing private parties to accept responsibility for the cleanup of contaminated sites. If these private parties do not perform the required cleanup, the EPA will take control of the cleanup and seek cost recovery from those parties responsible for the site. Cleanup can be a very time-intensive process.

The cost to clean up a Superfund site is substantial. One study estimates average site cleanup costs at \$35 million to \$101 million (Dixon, Drezner, and Hammitt 1993). The Congressional Budget Office places the total cleanup cost for current and future NPL (Superfund) sites in the \$100 to \$400 billion range (Revesz and Stewart 1995).

To date, only a portion of NPL sites have been cleaned up. By the end of 1997, work was considered complete at 498 of the 1,405 NPL sites. In light of the number of all hazardous waste sights to be cleaned up and the costs involved, the impact on responsible parties could be quite significant.

Potentially Responsible Parties

Under CERCLA, a potentially responsible party (PRP) is defined as any individual or company who is potentially responsible for or contributed to the contamination problems at a Superfund site. The EPA, through administrative or legal action, seeks to require PRPs to clean up hazardous waste sites they have contaminated. A PRP can include:

- Current owners or operators of facilities where hazardous substances have been deposited.
- Owners or operators of facilities at the time hazardous substances were deposited.
- Generators of hazardous substances deposited at facilities.
- Transporters of hazardous substances to facilities.
- Persons who arranged for disposal or treatment of hazardous substances at facilities. (Jensen and Unger 1991, p. 18)

To address the issue of cleanup of hazardous waste sites identified by the EPA, Congress chose to adopt a liability-based program. The program essentially requires that PRPs undertake cleanup of sites themselves, or the government will clean up the site and seek to recover its costs from the PRP. Almost any party connected with the hazardous substances found at a site is considered a PRP. For PRPs, the liability is threefold:

- **Strict Liability** -- the PRP is liable for cleanup costs even when there was no negligence.
- **Joint and Several Liability** -- even if several parties contributed to the waste at a site, any one party can be forced to bear the full cost of the remedy.
- **Retroactive Liability** -- the provisions apply to actions that took place before CERCLA was passed. (Dixon, Drezner, and Hammitt 1993, p. 2)

In their decisions to date, the courts generally have followed equitable apportionment of joint and several liability among responsible parties. In recent legal actions, the courts have expanded liability coverage to rule that lenders who hold assets as collateral are responsible when the PRP becomes insolvent (Berry, Greeley, and McNamara 1991). Additionally, the courts have extended liability by finding members of the board of directors of a PRP company individually liable for environmental matters (Bailey 1991).

In light of these actions by the courts, being identified as a PRP is a significant event. Accordingly, a review of the process by which PRPs are notified is essential.

PRP Notification

A company's initial notification of potential involvement in a Superfund site may occur through several different sources: (a) the appearance of a site on a government list such as the NPL; (b) inclusion in the Comprehensive Environmental Response, Compensation, and Liability Information System (CERLIS); or (c) listing on a state priorities list.

Notification by the EPA that a company may be a PRP is usually when full-scale involvement begins for a company. The notification can take several forms:

- **General Notice Letter** to all PRPs that 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.
- **Special Notice Letter** to PRPs that states 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 60 to 120 days) to take response actions. The Special Notice Letter provides the names and addresses of other targeted PRPs and it may include a draft of a consent decree for each party to share in the costs. 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. (AICPA 1995, 11)

Receipt of a Special Notice Letter (SNL) by a PRP is significant. Because the SNL includes

all site-targeted PRPs, it represents the first public announcement by the EPA of those responsible for site cleanup. It also signals to PRPs the EPA's intention to take immediate site action.

In light of the importance of information that an entity has been identified as a PRP, how, when, and where that information is reported is of particular interest. The financial reporting and disclosure of this information and their related environmental issues are discussed in the next section of this manuscript.

Financial Reporting and Disclosure

This manuscript will now review disclosure requirements of the Securities and Exchange Commission and the Financial Accounting Standards Board. The similarities and differences of these requirements and how they interface with EPA requirements is emphasized. These topics contribute to an understanding of environmental reporting by publicly held corporations in this country.

Securities and Exchange Commission

In the aftermath of the stock market crash of 1929, Congress passed the Securities Act of 1933 and the Securities Exchange Act of 1934 and established the SEC to administer these and several other federal acts. The SEC has the legal authority to prescribe accounting principles and procedures for companies under its jurisdiction and to determine the form and content of financial reports filed with the SEC. Based on the Securities Acts of 1933 and 1934, any company whose stock is publicly traded is required to follow SEC disclosure requirements in its filings.

The SEC disclosure requirements for environmental liabilities have evolved differently from those of the Financial Accounting Standards Board (FASB). The SEC mandates that corporations file a report if pollution expenditures have a material effect on their earnings. SEC regulation S-K requires that certain types of environmental information be disclosed:

- The material effects that compliance with federal, state, and local environmental laws may have upon capital expenditures, earnings, and competitive position.
- Litigation pending or known to be contemplated by a government authority pursuant to federal, state, and local environmental regulations.
- Any other environmental information of which a prudent investor ought to be informed. (Williams and Phillips 1994, p. 31)

In its *Financial Reporting Release* 36 issued in 1989, the SEC discusses and illustrates various disclosure requirements for the Management Discussion and Analysis (MD&A), in SEC filings, of financial condition and results of operations. Disclosure is based on the assumption that the occurrence of material, but uncertain, events must be assumed unless management determines that the occurrence is **not reasonably likely**. The SEC also indicates in this release that designation as a PRP does **not** necessarily trigger disclosure since the company's circumstances, taken together with PRP status, may provide knowledge that a governmental agency is contemplating a proceeding that may require disclosure (Roussey 1992).

On the issues of discounting of environmental liabilities and the use of offset, the SEC has taken the position that discounting is appropriate only if the amount of the obligation and the amount and timing of the cash payments are fixed or reliably determinable. Because of prevailing practice, the SEC had not objected to the use of offset in presentation on the balance sheet, yet with the issuance of *Staff Accounting Bulletin No. 92* (SEC 1993), the SEC reconsidered the issue and elected to follow the FASB's lead by prohibiting the use of offset in the balance sheet for years beginning after December 15, 1993 (Nichols 1996).

The SEC has brought three major enforcement actions (under the Code of Federal Regulations 17, Chapter 11) related to environmental

actions. The three actions involved failure of a chemical corporation to tell shareholders of possible material financial liabilities resulting from the discharge of toxic chemicals (1977), deficiency in environmental disclosures of a steel corporation, because they did not include internal estimates of material costs of environmental compliance (1979), and failure by a petroleum company to disclose certain pending environmental proceedings and significant potential liabilities (1980) (Sikich 1991).

EPA-SEC Agreement

The SEC's position on disclosure of environmental liabilities was further strengthened in an agreement with the EPA in 1990. In this agreement, the EPA agreed to provide the SEC with the following information quarterly:

- Names of parties who have been identified as PRPs.
- A list of all cases filed under the RCRA and CERCLA.
- A list of recently concluded civil cases under federal environmental laws.
- A list of all criminal cases brought under federal environmental laws.
- A list of all facilities barred from governmental contracts under the Clean Air Act and the Clean Water Acts.
- A list of facilities subject to clean up requirements under RCRA. (Wiegley 1990, p.1)

In exchange for this information from the EPA, the SEC agreed to begin targeting environmental disclosures for enforcement.

Financial Accounting Standards Board

In 1938 the SEC elected to delegate its responsibility to prescribe accounting principles and procedures to the private sector, the accounting profession, yet did not delegate its enforcement authority. Since that date, the SEC has followed the policy of relying on Generally Ac-

cepted Accounting Principles (GAAP) promulgated by the accounting profession and its rule-making bodies for evaluating reports and statements filed with the SEC.

With specific reference to disclosure of environmental liabilities, accountants today are required to follow pronouncements enacted by the Financial Accounting Standards Board (FASB). Contingent liabilities arising from environmental cleanup costs are accounted for and disclosed according to the accounting principles stated in FASB *Statement of Financial Accounting Standards (FAS)* No. 5, "Accounting for Contingencies," issued in 1975. This statement requires that provision for a loss contingency be accrued and a liability recognized on the face of the financial statements when **both** of the following conditions are met:

- It is **probable** that an asset has been impaired or a liability has been incurred at the date of the financial statements; i.e., it is probable that a future event or events will occur confirming the fact of the loss; and
- The amount of the loss can be **reasonably estimated**. (FASB 1975, p. 2)

FAS No. 5 states that if the loss is **reasonably possible** and can be reasonably estimated, the loss contingency must be reported only as a note to the financial statements. When there is only a **remote possibility** of the occurrence of the future event, the FASB does not require either an accrual or a note, but recommends a note in such instances.

The FASB has also provided additional guidance regarding loss contingencies in *FASB Interpretation (FIN) No. 14*, "Reasonable Estimation of the Amount of a Loss" (FASB 1976). This interpretation of *FAS No. 5* further explains how to recognize a loss contingency when the estimated loss is within a specified range. *FIN No. 14* recommends that the minimum amount of the range be accrued, unless some amount within the range appears at the time to be a better estimate than any other amount within the range.

In 1993, the Emerging Issues Task Force (EITF) examined the issue of environmental reporting in *EITF 93-5*, "Accounting for Environmental Liabilities" (FASB 1993). This EITF considers when it is appropriate to include recoveries in measuring the amount of a probable loss, and under what circumstances it is acceptable to discount an environmental liability.

Regarding the first issue, the EITF reached a consensus that a two-event approach should be taken when the environmental loss is evaluated independently from any potential claim for recovery. There is no consensus on whether it is appropriate on the balance sheet to net receivables recognized for recoveries against the environmental liability.

FASB Interpretation (FIN) No. 39, "Offsetting of Amounts Related to Certain Contracts" (FASB 1992), examines the use of offsets. *Accounting Principles Board Opinion No. 10* states that it is a general principle of accounting that the offsetting of assets and liabilities in the balance sheet is improper except where a right of setoff exists. (The right of setoff is defined in this context 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.)

FIN No. 39 further delineates the right of setoff by indicating that it exists 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 amount owed with the amount owed by the other party.
- The reporting party intends to set off.
- The right of setoff is enforceable at law. (FASB 1992, p. 2)

In many cases of reporting environmental liabilities, *FIN No. 39*, precludes the right of setoff if

more than two parties are involved (Nichols 1996).

Regarding the second issue, the acceptability of discounting environmental liabilities, the EITF reached a consensus that discounting environmental liabilities for a specific cleanup site to reflect the time value of money is allowed if the aggregate amount of the obligation and the amount and timing of the cash payments for that site are fixed or "reliably determinable." If discounting is used, the discount rate should be disclosed (Nichols 1996).

Conclusion

Today, many firms are encountering environmental issues and seeking guidance on reporting and disclosing this information to the public. This manuscript reviewed the magnitude of environmental pollution in the United States, a brief history of the BPA, environmental regulatory acts including the Superfund Act, and reporting and disclosure requirements by the SEC and the FASB. By gaining a better understanding of the state of environmental issues in the United States, firms may be proactive in reporting and disclosing environmental information in the future.

Suggestions For Future Research

There are several future research studies that should be undertaken in the area of financial reporting for environmental disclosures by publicly held corporations. Studies could be conducted to assess whether the stock market impounds information when a firm receives a General Notice Letter or a Special Notice Letter. Another study could examine the state of environmental disclosures by publicly-held corporations today and in the past. Research could also be conducted to compare reporting and disclosure of environmental issues in the United States with other countries around the world. Finally, an assessment could be made to determine firm motivations in regards to disclosure of environmental information to the public. □

Bibliography

1. Accounting Principles Board (APB), "Omnibus Opinion—1966," *APB Opinion No. 10*, American Institute Of Public Accountants, New York, 1966.
2. American Institute of Certified Public Accountants (AICPA), "Environmental Remediation Liabilities," *AICPA Statement of Position 96-1*, AICPA, New York, 1996.
3. Bailey, D., "The Director As Polluter," *Directors & Boards*, Vol. 15 (Summer), pp. 40-42, 1991.
4. Berry, B., Jr., P. Greeley and P. McNamara, "Superfund Liability For Financial Institutions," *Commercial Law Journal*, Vol. 96 (Spring), pp. 59-76, 1991.
5. Dixon, L., D. Drezner and J. Hammitt, *Private-Sector Expenditures And Transaction Costs At 18 Superfund Sites*, RAND, Santa Monica, CA, 1993.
6. Environmental Protection Agency (EPA), "Superfund: Looking Back, Looking Ahead," *EPA Journal* (January/February), pp. 13-35, 1987.
7. Financial Accounting Standards Board (FASB), "Accounting For Contingencies," *Statement of Financial Accounting Standards No. 5*, Financial Accounting Standards Board, Norwalk, CT, 1975.
8. Financial Accounting Standards Board (FASB), "Reasonable Estimation Of The Amount Of A Loss," *FASB Interpretation No. 14*, Financial Accounting Standards Board, Norwalk, CT, 1976.
9. Financial Accounting Standards Board (FASB), "Offsetting Of Amounts Related To Certain Contracts," *FASB Interpretation No. 39*, Financial Accounting Standards Board, Norwalk, CT, 1992.
10. Financial Accounting Standards Board Emerging Issues Task Force, "Issue No. 93-5; Accounting For Environmental Liabilities," *EITF Abstracts*, Financial Accounting Standards Board, Norwalk, CT, 1993.
11. Jensen, D. and C. Unger, "Environmental Liability," *Denver Business* (April/May), pp. 18-19, 1991.
12. Landy, M., M. Roberts and S. Thomas, *The Environmental Protection Agency*, Oxford University Press, New York, 1994.
13. Nichols, L., "Bank Loan Officers' Perceptions Of Environmental Reporting", working paper presented at the American Accounting Association Annual Meeting, 1996.
14. Resvesz, R. and R. Steward, eds., *Analyzing Superfund Economics, Science, and Law, Resources For The Future*, Washington, D.C., 1995.
15. Roussey, R., "Auditing Environmental Liabilities," *Auditing: A Journal Of Practice & Theory*, Vol. 11 (Spring), pp. 47-57, 1992.
16. Securities and Exchange Commission (SEC), "Management's Discussion and Analysis Of Financial Condition And Results Of Operations; Certain Investment Company Disclosure," *Financial Reporting Release No. 36*, Securities and Exchange Commission, Washington, D.C., 1989.
17. Securities and Exchange Commission (SEC), *Staff Accounting Bulletin No. 92*, Securities and Exchange Commission, Washington, D.C., 1993.
18. Sikich, G., "Reducing Environmental Vulnerability," *New Accountant* (March), pp. 8-10, 42, 1991.
19. Simon, R. "Deals That Smell Bad," *Forbes*, Vol. 143 (May), pp. 49, 52, 1989.
20. Vincoli, J. *Basic Guide To Environmental Compliance*, Van Nostrand Reinhold, New York, 1993.
21. Wiegley, R., "Reporting of Environmental Liabilities-New SEC Initiatives," *The SEC Today*, Vol. 90-96 (May), pp. 1-2, 1990.
22. Williams, G. and T. Phillips, Jr., "Cleaning Up Our Act: Accounting For Environmental Liabilities," *Management Accounting* (February), pp. 30-33, 1994.