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THE ENVIRONMENTAL TIMEBOMB: DISCLOSE, RECOGNIZE OR DISREGARD

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Abstract

Is the amount of environmental cleanup costs sufficiently large to cause financial difficulties for U.S. firms? What is the existing guidance for environmental reporting? How do environmental laws affect firms? How are publicly traded companies reporting environmental contingencies? Drawing from numerous sources, this report quantifies the potential liability facing U.S. firms, examines how federal environmental laws apply to firms, presents information from current accounting literature regarding environmental reporting, and presents data regarding the reporting of environmental contingencies by publicly traded companies. An examination of 10Ks and Annual Reports of publicly traded companies reveals that SFAS No. 5 does not provide adequate guidance for environmental reporting.

A GROWING PROBLEM

There are enormous costs looming on the horizon for many U.S. firms. These costs probably exceed the aggregate liability for postretirement benefits as required by SFAS 106. It is estimated that over $100 billion a year will be spent in the near future in response to clean air acts mandated by Congress (Pitre 1993, 28-30).

Transamerica Corporation reported in its 1992 annual report that it is estimated that cleaning up the pollution at Superfund sites will cost between $500 billion and $1.6 trillion. Pollution case defendants can fund environmental cleanup awards through long-term annuities. Transamerica Occidental Life Insurance Company's structured settlement division specializes in this fast-growing area (Transamerica 1992 Annual Report, Footnote No. 9).

The magnitude of this problem is documented by a U.S. Environmental Protection Agency report which states that 137,581 tanks holding billions of gallons of gasoline, oil, and diesel fuel have been registered with the Texas Water Commission and as many as one fourth of them may be leaking. According to water commission officials, there is an unknown number of unregistered tanks and an unknown or unreported number of related leaks because many of the tanks were abandoned in the 1950's and 1960's, and no one remembers where they are. Nationwide, it is estimated that there are about 1.8 million underground fuel tanks and 110,000 leaks (Morris 1991, p. 1d).

In addition, the EPA has identified more than 400 toxic chemicals produced by nearly 600 companies manufactured in 12,000 plants and stored in 400,000 locations. These pollutants may be found in such familiar locations as dry cleaners, paint stores, farms, and airports (Bayes 1991, 32).

The Brookings Institute has estimated the total cost of federal air and water legislation in the United States in 1990 at $320 billion. These costs represent a reallocation of resources with a corresponding reduction in Gross Domestic Product of 5.8 percent (Fortune, March 23, 1992, p 26).
Currently, the Environmental Protection Agency has identified 1,200 "priority" sites with an estimated cleanup cost per site of $20-$40 million (Steadman et al. 1993, 113).

The Environmental Protection Agency has identified about 27,000 sites requiring cleanup action under its Superfund program. The General Accounting Office estimates that up to 425,000 sites may require cleanup by the EPA (Scallon 1992a, 95). In House of Representatives Report No. 1016, 96th Congress, 2nd Session, the EPA estimates that prior to 1980, 90 percent of the 77.1 billion pounds of hazardous waste produced each year was disposed of in an improper manner.

Adding to the environmental dilemma is the lead paint problem. There are an estimated 49 million housing units in the U.S. that were built and painted prior to 1960. Of these, five to seven million are considered immediate hazards because of poor maintenance. The paint in most homes built during the first half of this century contained up to 30 per cent lead. HUD in the early 1970's estimated the cost to abate lead in government housing at $40 to $50 billion (Lippy and Haight 1991, 82).

The impact of environmental contingencies is not limited to large firms that are engaged in chemical, petroleum, and other high risk industries. An example of a small firm that has been dramatically affected by the use of hazardous chemicals and the disposal of hazardous waste is provided by an article in the Houston Chronicle on January 30, 1994:

Martin Yee, 60 years old and looking forward to retirement, is facing the full impact of the hazardous waste problem. Yee and his landlord are defendants in a lawsuit filed by Southwestern Bell Telephone Co., seeking contributions for cleanup of contaminated groundwater under one of Bell's facilities on the west side of El Paso. The phone company's environmental testing at its property turned up traces of perchlorethylene, the common solvent used by the dry cleaning industry for decades. Yee asserts he should not be held responsible for the contamination because he followed all state and federal environmental regulations during the time he operated his dry cleaning plant across the street from the phone company facility. The federal statute that established the Superfund environmental cleanup program imposes strict liability for cleaning up contamination. Businesses can be required to pay for cleanups even if they followed the waste disposal rules on the books at the time, and the law imposes 'joint and several' liability which requires parties to pay cleanup costs even if they were responsible for only a small amount of the contamination. Yee felt that he had accumulated enough assets to retire, but the lawsuits have placed these assets at risk (Mintz 1994, pp 5F-6F).

Large, high-profile cases such as the Exxon Valdez oil spill ($2 billion plus cleanup cost) and Union Carbide ($470 million fine for the Bhopal, India environmental catastrophe) can create the illusion that the problem involves only large firms and infrequent occurrences.
The size of the contingent liabilities facing U.S. firms is the result of years of neglect on the part of the federal and state governments. However, the nature of the current laws dealing with environmental problems is creating liabilities for firms that have never manufactured, sold, or used an environmentally damaging substance. Contamination poses a number of threats to firms: (1) loss of value of assets which is directly attributable to contamination, (2) loss of value of assets by virtue of market reaction to the knowledge of contamination, (3) the cost of remediation, (4) the cost of compliance, (5) business interruption costs, (6) third-party liability such as toxic tort damage to adjacent properties and the like, and (7) transactional costs of environmental claims or litigation, regardless of whether liability actually exists or is merely asserted.

When one assesses the problem, it becomes clear that the dollar amount involved is very significant and there is another aspect that adds to the magnitude of the environmental problem. The nature of the laws governing environmental hazards is such that there are thousands of firms and individuals that have the potential to be liable for enormous sums of money even though they did not create or cause the problem.

**WHO IS LIABLE AND WHY**

A closer look at the laws that apply to hazardous waste will provide some insight into who is liable and why.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is the major environmental legislation in this area. It authorizes the federal government to respond to the release or threatened release of hazardous substances and creates a Hazardous Substance Superfund to finance the government’s response activities. CERCLA was enacted to cure deficiencies in previously enacted environmental legislation, specifically, the Resource Conservation and Recovery Act (RCRA). Because RCRA was only enacted to provide a regulatory scheme governing the present-day generation of toxic waste, CERCLA was enacted to address the toxic waste which was generated in the past.

Under CERCLA, when there is a release or threatened release of hazardous substances, the federal government may either clean up the site itself and seek reimbursement for its cleanup costs from statutorily liable parties, commonly known as "potentially responsible parties" (PRPs) or compel PRPs to clean up the site. Liability under CERCLA is strict and defenses are very limited. CERCLA designates as PRPs current owners of contaminated property who may not have been responsible for the contamination. Their only association with the contamination is current ownership of the land. Although, in 1986 the so-called "innocent landowner defense" was added to CERCLA, the proof requirements are rigorous and consequently have not significantly expanded the third party defense.

Current owners not responsible for contamination who are ordered by the EPA to clean up a site, may seek a private right of action for reimbursement or contribution from other PRPs for any
necessary response costs consistent with the national contingency plan. In the alternative, current owners may undertake a cleanup on their own initiative and seek a private right of action for contribution from other PRPs for any necessary response costs consistent with the national contingency plan. However, current owners seeking contribution may only recover for response costs (investigation, cleanup, natural resource damages, and health assessment). CERCLA provides no compensation for any other types of damage such as economic and consequential losses, which landowners may incur upon the discovery of toxic waste on their property.

Most states have environmental protection legislation largely analogous to CERCLA. CERCLA is the most formidable of the laws due to the wide range of PRPs and CERCLA’s treatment of joint and several liability among those parties. Four broad categories of PRPs may be liable for hazardous waste site cleanup costs: (1) The owner or operator of a facility (the current landowner), (2) the owner or operator at a time when hazardous substances were disposed of at the site (a former landowner), (3) the parties that arranged for the disposal, treatment, and transport of wastes to the facility (including hazardous waste generators), and (4) parties that transported hazardous wastes to the facility.

The following may become PRPs: (1) the purchaser of real property, even though contamination occurred before its acquisition of the site, (2) the seller of real property (owner at the time of contamination even though no longer the owner), (3) a lessor (owner) that might be held liable for cleanup due to a tenant’s actions, although unaware of the hazardous waste, (4) a lessee deemed to have an ownership interest under a long-term lease under Generally Accepted Accounting Principles or that is regarded as the business property "operator", (5) a successor corporation through merger or consolidation, and (6) a lender that becomes an owner of contaminated property through foreclosure of a delinquent debt (Scallon 1992b, 97-108).

**CURRENT GUIDANCE FOR ENVIRONMENTAL REPORTING**

In the face of these unsettling facts, what is the existing guidance for environmental reporting? Environmental reporting involves both recognition and disclosure. Recognition (in the main body of the financial statements) involves measurement and display. Questions that must be addressed include (1) whether incurred outlays should be capitalized or expensed, (2) how to attribute outlays to accounting periods, and (3) when to recognize liabilities, events, or conditions that may require future outlays and how to measure those expected outlays.

The difficulties involved in recognition, primarily in the area of measurement, lead to disclosure being the only recourse for environmental reporting.

There is very little guidance in authoritative literature concerning how to address the difficulties involved in environmental reporting: (1) one FASB standard (SFAS No. 5), (2) an interpretation, (3)
issues that the FASB's Emerging Issues Task Force (EITF) has addressed, and (4) the Securities and Exchange Commission (SEC) disclosure requirements for publicly traded companies.

The question of when and whether to recognize contingencies, including environmental matters, is addressed by SFAS No. 5. SFAS No. 5 defines a contingency as "an existing condition, situation, or set of circumstances involving uncertainty as to possible gain or loss to an enterprise that will ultimately be resolved when one or more future event occur or fail to occur." Contingencies should be recognized as losses if (a) it is probable that a liability has been incurred or an asset impaired and (b) the amount of the liability or the impairment can be reasonably estimated.

SFAS No. 5 provides guidance for recognizing losses, but does not provide guidance for measuring them. FASB Interpretation No. 14 states that when the reasonable estimate of a loss is a range and some amount within the range appears at the time to be a better estimate than any other amount within the range, that amount shall be accrued. When no amount within the range is a better estimate than any other amount, the minimum amount in the range shall be accrued.

In addition to specifying the conditions under which loss contingencies should be recognized, SFAS No. 5 provides the conditions under which the contingencies should be disclosed. Disclosure is required if (a) it is probable that a loss has been incurred but the amount of the loss cannot be reasonably estimated or (b) there is at least a reasonable possibility that a loss has been incurred.

FASB's Emerging Issues Task Force has reached consensus on two issues which focus on whether to capitalize or expense certain costs incurred for environmental purposes. Issue No. 89-13, Accounting for the Cost of Asbestos Removal permits the capitalization of costs incurred for asbestos removal, provided they are incurred within a reasonable period of time after the acquisition of property with a known asbestos problem. Issue No. 90-8, Capitalization of Costs to Treat Environmental Contamination, generally calls for expensing of contamination treatment costs. Capitalization is permitted (subject to recoverability) if the costs (a) extend the life of the asset, increase the asset's capacity, or improve its efficiency relative to the property's condition when it was originally constructed or acquired, (b) mitigate or prevent future contamination, or (c) are incurred in the preparation of the property for sale. Issue No. 93-5, Accounting for Environmental Liabilities, calls for environmental liabilities to be evaluated independently from any potential claim for recovery. Further, losses arising from the recognition of an environmental liability should be reduced only when a realization of a claim for recovery is probable. Discounting environmental liabilities for a specific cleanup site is allowed only if the aggregate amount of the liability and the amount and timing of the cash payments for that site are fixed or reliably determinable.

In addition to the disclosure requirements of SFAS No. 5, public companies have disclosure requirements that are related to filing with the Securities and Exchange Commission (SEC). Regulation S-K, Item 101, requires a general description of the business and specific disclosure of the material effects that compliance with environmental laws may have on the capital expenditures,
earnings, and competitive position of the registrant. Disclosures include material estimated capital expenditures for the current and succeeding fiscal years and for any further periods in which those expenditures may be material, including costs of bringing an entity into compliance with environmental regulations.

Regulation S-K 103, requires disclosure of pending or contemplated administrative or judicial proceedings, including those arising under environmental laws, that (a) are material, or (b) the claim for which exceeds 10 percent of the registrant's current assets, or (c) a government authority is a party to and for which sanctions will be greater than $100,000.

A 1979 interpretive release requires disclosure of estimates of future costs of environmental compliance if future costs are expected to be materially higher than current costs. Also, if a registrant voluntarily discloses its environmental policies, the registrant is required to ensure the accuracy of that disclosure.

SEC Staff Accounting Bulletin No. 92 indicates that the rate used to discount the cash payments should be the rate that will produce an amount at which the environmental liability could be settled in an arm's-length transaction with a third party. However, if that rate is not readily determinable, the rate used should not exceed the interest rate on monetary assets that are essentially risk free and that have maturities comparable to that of the environmental liability.

Financial Reporting Release No. 36 is an interpretive release to Regulation S-K, Item 303, and addresses environmental disclosures in Management's Discussion and Analysis. It requires a discussion of all effects on results of operations, liquidity, and capital resources unless management can determine that a material effect is not likely to occur. Companies that have been correctly designated by the EPA as potentially responsible parties (PRPs) in most cases must disclose the effects of that PRP status, quantified to the extent reasonably practicable. Disclosure should include the aggregate potential cleanup costs required as well as significant implications of environmental laws on future operations (Johnson 1993, 118-123).

In addition to these disclosure requirements, the EPA is now providing the SEC with environmental information: (1) a listing of companies named as a Potentially Responsible Party, and the associated hazardous waste sites, (2) a listing of all cases on which EPA action is pending under CERCLA and RCRA, (3) a listing of all facilities that are barred from government work under the Clean Water Act, and (4) a listing of all RCRA facilities subject to clean up. The SEC uses this information to determine whether registrants are providing adequate disclosure and sufficient information.
A REASONABLE SUGGESTION FOR IMPROVEMENT

Faced with credible evidence that the environmental problem poses a significantly large economic impact on U.S. firms, it is important to consider whether the guidance provided by authoritative accounting literature is adequate. Does the problem involve recognition and disclosure or auditing, or perhaps both? Is there a need for accounting standards that provide guidance about when and how to recognize and measure environmental costs and obligations, or a need for a disclosure standard that provides guidance about environmental information contained in the footnotes of financial statements, or a combination of recognition and disclosure standards.

In a recent article in Internal Auditing, entitled "Environmental Protection: The Liability of the 1990's", Rittenberg, Haine, and Weygandt presented a well conceived suggestion that could mitigate some of the current difficulties involved in accounting for environmental costs. The authors suggested that the EPA's remedial action program provides a useful framework by combining the EPA process and accounting recognition as follows:

1. Identification of sites: Companies at this point should not need to disclose a contingent liability unless it is probable or reasonably possible that a material cost will be incurred by the company.
2. Identification of PRPs: Disclosure should take place at this point regarding the nature of the contingency. Once a company is identified as a PRP, it seems that disclosure is necessitated unless a strong case can be made that the possibility of loss is remote.
   The general notice letter provides an effective trigger point to force disclosure. The presumption should be at this point that a contingent liability exists unless management can show that a liability is remote.
3. Remedial investigation/feasibility study: During this phase, a range of cost estimates associated with a particular site emerges. As a result, it is possible to accrue the lower amount and disclose the higher amount when it is probable that a loss contingency exists.
4. Formal negotiations: The special notice letter and subsequent 120-180 day negotiation period provide evidence on the total cost of a site cleanup and approximate allocation. At this point a liability should be recorded if the likelihood of cleanup costs meets the criteria of SFAS No. 5.

When the environmental liability is recognized, the related cost should be reported as a separate operating item on the income statement.
A MORE CONSERVATIVE APPROACH

There are some practitioners who feel that SFAS No.5 is not adequate. When we compare contingency reporting in the U.S. with many European countries we find that their requirements differ on the conservative side. For example, in Germany, the prudence concept is used. If an event has occurred and a loss is possible and reasonable the loss must be recognized and either a liability recognized or an allowance established whereas U.S. criterion is based upon FASB's definition of a liability as probable future sacrifices of economic benefits arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.

DISCLOSE, RECOGNIZE, OR DISREGARD

In an attempt to determine how publicly traded companies are dealing with accounting for environmental costs, an analysis of 10Ks and annual reports of companies listed on the New York, American, and NASDAQ exchanges was accomplished by utilizing Compustat PC Plus Corporate Text software.

Two searches were conducted. First a search was undertaken to determine how many companies reported PRP status during the period 1987 through 1992. The results of that search are shown in Exhibit 1.

Exhibit 1: Number of Companies Reporting PRP Status, 1987-1992
New York and American Stock Exchanges

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</thead>
<tbody>
<tr>
<td>Number of Listed Companies</td>
<td>2,531</td>
<td>2,719</td>
<td>2,818</td>
<td>2,837</td>
<td>2,788</td>
<td>2,653</td>
</tr>
<tr>
<td>Number Reporting PRP Status</td>
<td>189</td>
<td>226</td>
<td>302</td>
<td>353</td>
<td>360</td>
<td>476</td>
</tr>
<tr>
<td>Percent Reporting PRP Status</td>
<td>7.47%</td>
<td>8.31%</td>
<td>10.72%</td>
<td>12.44%</td>
<td>12.91%</td>
<td>17.94%</td>
</tr>
<tr>
<td>Percent Change in Listed Companies</td>
<td>7.43%</td>
<td>3.64%</td>
<td>0.67%</td>
<td>-1.73%</td>
<td>-4.84%</td>
<td></td>
</tr>
<tr>
<td>Percent Change in Number Reporting PRP Status</td>
<td>19.58%</td>
<td>33.63%</td>
<td>16.89%</td>
<td>1.98%</td>
<td>32.22%</td>
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</tr>
</tbody>
</table>

Information regarding NASDAQ could not be retrieved on an annual basis. A search of the 10Ks and annual reports for the period 1990 through 1993 indicated that the average number of
companies listed was 2,112 with 149 companies reporting PRP status. This represents 14.17 percent of the listed companies.

The information from the New York and American exchanges indicates there is a growing number of firms that are reporting PRP status. The number more than doubled during the period 1987 through 1992.

The second search involved an analysis of 10Ks and annual reports for all three exchanges for the year 1992. The purpose of this analysis was to determine whether SFAS No. 5 was being applied consistently. A search was conducted using the key words "Superfund" and "CERCLA". The 10Ks of the companies that reported PRP status were reviewed and counted. The count was divided into two categories: (1) those that reported PRP status, however did not indicate a dollar amount of costs, and (2) those that reported PRP status and indicated a dollar amount of costs. After analyzing the 10Ks and conducting the count as described, the annual reports of the companies reporting PRP status in their 10Ks were analyzed to determine the number of companies that recognized, disclosed, or disregarded the PRP status. The result of this analysis is shown in Exhibit 2.

Exhibit 2: Public Companies' Treatment of PRP Status
10K vs Annual Report

<table>
<thead>
<tr>
<th>10K Report:</th>
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<tbody>
<tr>
<td>Dollar amount disclosed</td>
<td>100</td>
</tr>
<tr>
<td>No dollar amount disclosed</td>
<td>385</td>
</tr>
<tr>
<td>Total reporting PRP status</td>
<td>485</td>
</tr>
</tbody>
</table>

Annual Report:

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<tbody>
<tr>
<td>Disclosed</td>
<td>119</td>
</tr>
<tr>
<td>Recognized</td>
<td>93</td>
</tr>
<tr>
<td>Total Reporting PRP Status</td>
<td>212</td>
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</table>

10K/Annual Report:

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<tbody>
<tr>
<td>Reported status in 10K; omitted in annual report</td>
<td>273</td>
</tr>
<tr>
<td>Reported status and amount in 10K, disclosed in annual report</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>295</td>
</tr>
</tbody>
</table>

Based upon an analysis of the treatment of environmental costs by publicly traded companies during 1992, one would conclude that SFAS No. 5 is not consistently applied. In order to further
make this point, two extreme examples are presented: (1) In the 1992 annual report of Texaco, Inc., their PRP status was recognized and a footnote to the financial statement stated that "Since the enactment of Superfund legislation, regulatory agencies have identified Texaco as a potentially responsible party (PRP) for remediation at about 200 hazardous waste sites. The company has established financial reserves based on its share of anticipated remediation costs and settlements for approximately 110 sites. Texaco's exposure for remediation in the remaining PRP sites is expected to be limited and immaterial. Cleanup costs will be shared with other PRP's, including companies and government entities." (2) In the 1992 10K for Giant Industries, Inc. the following was disclosed:" In may of 1991, the EPA notified the Company that it may be a potentially responsible party under CERCLA for the release or threatened release of hazardous substances, pollutants or contaminants at the landfill. The company intends to defend itself from any allegations of liability. At the present time, the Company is unable to determine the extent of its potential liability, if any, in the matter. A consultant to the company has speculated that Giant's potential liability could be approximately $1.2 million. This figure was based upon the consultant's evaluation of such factors as available clean-up technology, BLM's involvement at the site, and the number of other entities that may have had involvement at the site." In their 1992 annual report, Giant Industries, Inc., chose to disclose their PRP status by stating that "The United States Environmental Protection Agency notified the Company in May 1991 that it may be a potentially responsible party for the release or threatened release of hazardous substances, pollutants, or contaminants at the Lee Acres Landfill, which is owned by the United States Bureau of Land Management and which is adjacent to the Company's Farmington refinery which was operated until 1982. At the present time, the Company is unable to determine the extent of potential liability, if any, in this matter and has made no provision therefore in its financial statements."

Texaco on the one hand recognizes their share of cleanup costs while Giant chooses to use SFAS No. 5 as a means of only disclosing PRP status.

IS THERE A SOLUTION TO THE DILEMMA?

Those companies that are struggling with the problem of properly accounting for environmental costs are confronted with a difficult task due to the complexity of the laws and the monumental problem of ascertaining the costs involved. It is apparent that SFAS No. 5 was not designed to deal with the complexity of accounting for environmental costs. The FASB, in the conceptual framework for accounting, provides that one of the secondary qualities of financial accounting is comparability. This means that information that has been measured and reported in a similar manner for different enterprises is considered comparable. If one undertakes a comparison of the financial statements for Texaco, Inc., and Giant Industries, Inc., the information will lack the
secondary quality of comparability due to one company taking a conservative approach to the application of SFAS No. 5 and the other taking a liberal approach.

Companies need more guidance than SFAS No. 5 is providing, and the previously described proposed solution that involves the use of the EPA's remedial action program as a framework by combining the EPA process with the accounting process seems to be a viable solution.

References


