
ACCOUNTING FOR ENVIRONMENTAL CONTINGENCIES: THE IMPACT ON SMALL BUSINESS STRATEGIES

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Introduction

The past decade has witnessed a variety of developments which, in combination, have caused small manufacturers to significantly alter their methods of doing business. Global competition, enriched information technology, micro marketing, just-in-time manufacturing philosophies, and the increased quality demands of customers are only a few of the forces which have altered the management strategies of small manufacturers in the past decade. An equally influential force which has grown in importance and which looms as a significant factor which will affect small business operations is the national concern with the environment. Mandatory compliance with federal and state legislation has already forced numerous changes in how businesses operate, ranging from their use of natural resources such as water to their control of emissions released into the air. The burden of increasing regulatory costs has resulted in rising operating costs at a time in our economic history where many of our global competitors in developing economies are not experiencing comparable cost increases. These differences in cost represent a major difficulty for U.S. manufacturers in their efforts to remain cost competitive in world competition.

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% (*Fortune* 1992). At the federal level, small manufacturers may be responsible for compliance with the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, the Toxic Substance Control Act, the Congressional Comprehensive Environmental Response, Compensation and Liability Act, and the Superfund Amendment and Reauthorization Act. In addition, most states have enacted their own versions of this federal legislation.

Small manufacturers are well aware of the direct costs they incur to comply with the various environmental laws. However, only a few may be aware that the single most significant liability they may face in the environmental area is the remedial cleanup of a hazardous waste site. The liability under federal legislation (especially the Superfund Act) is very broad and far-reaching and allows for any Potentially Responsible Party (current owner, owner at time of disposal, waste generator, or waste transporter) to be held joint and severally liable for all costs associated with the cleanup. Liability can arise from non-compliance, personal injury or damage, or remedial

cleanup. Currently, the Environmental Protection Agency has now identified 1200 "priority" sites with the estimated cleanup cost per site of \$20-40 million (*Review* 1992).

There are numerous well-known examples of large firms such as Union Carbide (\$470 million fine for Bhopal, India incident) and Exxon (\$2 billion cleanup cost for Valdez oil spill) with multi-million dollar costs resulting from environmental accidents. For every Union Carbide and Exxon, there are dozens of smaller companies operating in the chemical, petroleum, and other high risk industries that could potentially be exposed, on a smaller scale, to similar environmental costs. Small manufacturers facing even a fraction of these cleanup costs would face financial ruin.

The magnitude of the potential problems for smaller firms is difficult to determine because such firms are often privately held and not required to issue financial statements to the public. While the environmental problems with smaller firms may receive extensive local exposure, the lack of national coverage may lead the general public and small firm executives to perceive the problem as one associated primarily with large firms.

Bringing this issue quickly to the forefront and adding to the complexity of the problem is the increased awareness by the accounting profession of their responsibility to record or disclose environmental liabilities and contingencies. Until recently, little emphasis was given to this area by members of the accounting profession. Companies, with their auditors' concurrence, simply applied Statement of Financial Accounting Standards No. 5 (SFAS No. 5), *Accounting for Contingencies*, and in most cases any future environmental liability was neither recorded nor disclosed. In recent years, the rule-making boards of the accounting profession have begun to recognize the magnitude of the possible effects of these contingencies on the financial well-being of firms of all sizes.

The purpose of this paper is twofold. First, the recent and anticipated future rulings formulated by various accounting and auditing bodies to improve the accounting treatment of environmental costs and to strengthen the audit procedures in this area will be presented. Second, the effect of these rulings on financial statement recognition and disclosure will be discussed, as well as the implications for valuation, divestiture and acquisition, and access to capital for small manufacturers.

Developments in Environmental Accounting

The primary pronouncement used in accounting for environmental contingencies is SFAS No. 5. Most authorities on environmental accounting agree that this Statement, issued in 1975, was never intended to be used in this manner. However, the lack of additional guidelines by the Financial Accounting Standards Board (FASB) has necessitated its use. SFAS No. 5, along with FASB Interpretation No. 14, requires the auditor and accountants for the firm to determine the likelihood of incurring a material loss. This likelihood is classified as either remote, reasonably possible, or probable. If the occurrence of the loss is determined to be remote, no accounting treatment is required. If the loss is deemed probable and the amount of the loss (or a range)

can be reasonably estimated, the loss contingency must be recorded as a liability with a charge against current earnings. For a reasonably possible loss, disclosure in the financial statement footnotes is required. Disclosure is also required by the Statement if the likelihood of the loss occurrence is probable but the amount cannot be reasonably estimated.

Note that the present financial accounting treatment regarding contingencies is based upon two factors—probability of occurrence and measurability. In most situations concerning environmental liabilities, the probability of occurrence is usually certain; i.e., the firm is aware of the existence of prior actions which have resulted in the creation of a hazardous waste site. While these actions were possibly appropriate at the time, they may be in violation of present environmental regulations. Thus, firms are judged for past actions based upon current standards and find themselves in violation of these standards.

A primary concern in this area is that the measurement of the potential liability (the cleanup costs) is often very difficult to quantify. Factors such as the cost of the preferred cleanup method (which can change with even newer EPA regulations) the availability of insurance reimbursement, the financial viability and contributions of co-parties, and the length of time for cleanup activities can make an accurate measurement of the future liability practically impossible. These difficulties become the major source of the problem for the accountant who must estimate, with some degree of accuracy, the amount of the potential liability. This computation is the key factor in determining the accounting treatment of the environmental liability. If the measurement (or a range) can be made, accrual of the loss is required by SFAS No. 5. If no estimate can be made, disclosure of the matter in the financial statement footnotes satisfies the requirements of current accounting standards. Presently, firms can comply with generally accepted accounting principles with a brief disclosure of the potential loss in the footnotes.

For example, as late as 1989, the financial statement footnote for Occidental Petroleum Corporation contained only a brief disclosure of the liabilities associated with the Love Canal site in upper New York state. No real disclosure of the estimated loss or range of loss was made even though the hazardous waste site was identified in 1978 and litigation initiated in 1979. In 1990, Occidental recorded a \$620 million provision for anticipated future environmental costs for past chemical operations in disposal sites including Love Canal. Therefore, for a ten year period, financial statement users were not fully informed of the magnitude of the potential costs (Rubenstein 1992).

The Auditor as Sherlock Holmes

The application of SFAS No. 5 requires a great deal of professional judgment on the part of the accountant or auditor. In most cases, information is gathered by contacting the client's attorney for his/her assessment of the contingency and by questioning management about the situation. While auditors are frequently required to use their judgment in applying professional standards and to maintain a sense of profes-

sional skepticism, one concern is that management may be somewhat hesitant to provide full information about past environmental actions. Also, current management may not be aware of actions taken by their predecessors in this area. If information is provided by management or legal counsel, even the less stringent treatment of the contingency (disclosure) by the firm's accountant does not guarantee adequate treatment. Freedman and Stagliano (1991) found a broad range of diversity in environmental disclosures even within the same industry. The authors found the range of disclosures to vary between detailed discussions to little elaboration about the item. Thus, the use of SFAS No. 5 to account for environmental contingencies has led to inconsistent reporting practices and, in some cases, non-conformity.

One of the main tenets of the accounting/auditing function in the United States is the comparability of financial statement presentation. The FASB has continually stated its desire to have similar transactions comparably recorded in relevant and reliable terms even though they may occur in different companies. Only through consistent application of financial accounting standards can comparability and reliability of the reporting process be assured.

To illustrate this point, consider the accounting treatment of the costs incurred after federal, state, and local laws were passed which required firms to remove or contain asbestos in buildings. Before any action could be taken by a standards setting body, some firms expensed the costs as incurred, while others capitalized the expenditures. This represented inconsistent accounting treatment of similar costs, and accurate comparisons between firms with similar economic circumstances could not be made by the financial statement users.

Recent Reforms

The Emerging Issues Task Force, a group formed by the FASB to handle issues not deemed appropriate for full Board action, resolved the problem by releasing two *EITF Abstracts*. The first of these statements (Issue No. 89-13) dealt specifically with asbestos cases, and stated that in most cases the costs should be capitalized. The second Abstract (Issue No 90-8) presented the accounting treatment for environmental expenditures for a broader spectrum of issues. These Abstracts lack the standing of a Statement of Financial Accounting Standard which is issued after the FASB's due process procedure, but are considered to be generally accepted accounting principles which must be followed by accountants.

The *EITF Abstracts* addressed only the costs which have been incurred in a known environmental cleanup situation. No mention is made of the potential contamination and the associated costs. SFAS No. 5 still applies to the latter area, and the deficiencies of the Statement are recognized by members of the accounting profession. Dennis Beresford, Chairman of the FASB, has indicated that SFAS No. 5 may not be adequate to allow for the proper financial statement presentation of environmental contingencies. According to Beresford, "Another issue that may receive greater attention is accounting for environmental matters" (*Securities Regulation and Law Report*

1990). Continuing, Beresford adds that application of SFAS No. 5 "is not providing the right answer when it comes to environmental matters because the loss may not be absolutely probable or it is not possible to make a reasonable estimate."

The underlying cause of this inadequacy can be traced to FASB action since its formation in the early 1970's. One of the first projects of the Board was the development of a Conceptual Framework of accounting (*Statements of Financial Accounting Concepts No. 1-6*). This framework provided the FASB with justification for most of the pronouncements which have been issued. The Framework relied on a Balance Sheet orientation—a premise that items on the Balance Sheet should be properly valued and that more items (especially liabilities) should be shown on the Balance Sheet. This orientation is evidenced by many of the major pronouncements of the FASB in recent years. These include SFAS No. 87 *Employers' Accounting for Pensions*, SFAS No. 106 *Employers' Accounting for Postretirement Benefits Other Than Pensions*, and SFAS No. 109 *Accounting for Income Taxes*. Each of these pronouncements focus on the Balance Sheet presentation of items in the respective area with special emphasis on the recording of liabilities.

Given the remarks of the Chairman of the FASB, the desire for financial statement comparability, and the Balance Sheet orientation of recent pronouncements, future action by the Board in this area is very likely and will inevitably lead to stricter financial accounting standards. These standards can be expected to focus on the Balance Sheet presentation of environmental liabilities. However, because of the lengthy process used by the FASB, the basic treatment of environmental contingencies may continue for some time to be based upon the requirements of SFAS No. 5.

What the Small Manufacturer Can Expect at the Next Audit

Despite the fact that FASB action is not scheduled in the near future for environmental matters, the auditing sector of the accounting profession has taken steps to increase the awareness of auditors with regard to these contingencies. As the interest level of auditors is heightened, the impact of environmental accounting and reporting will be felt by small manufacturers.

Professional standards and practices will require auditors to investigate the potential liability with greater scrutiny and to either record or disclose in more detail the financial effect of the contingent loss. Because of the negative impact of the savings and loan crisis on the accounting profession, the auditing sector is facing increased pressure to provide more stringent audits in accordance with generally accepted auditing standards. As a whole, the profession is very concerned with the image of independent, prudent, and objective auditors. Thus, small manufacturers will be faced with audits which are more carefully planned and executed and which focus on areas with a high level of inherent risks such as environmental contingencies.

The Auditing Standards Division of the American Institute of Certified Public Accountants has issued two *Audit Risk Alerts* in response to the growing concern about environmental matters and their potential impact on a firm's financial statements. The

first of these *Alerts*, issued in December 1990, directs the auditor to consider asking management if the company has ever been named as a Potentially Responsible Party under the Superfund Act or otherwise has a high level of environmental exposure. If so, the auditor is directed to consider the need to accrue the estimated cleanup costs and to determine the need for disclosure under the requirements of SFAS No. 5. Also, the auditor is instructed to consider environmental matters in the planning phase of the audit in order to properly examine the area for possible recording or disclosure.

In November 1991, a second *Audit Risk Alert* was issued which provides examples of environmental "red flags". These "red flags" are items which may indicate an increased risk of exposure to environmental liabilities. Examples of these items include (*The CPA Letter* 1991):

- 1) Participation in a real estate transaction or corporate merger.
- 2) The purchase of land at a price significantly below local market prices (a possible bargain price due to environmental risk).
- 3) Aborted transactions that involved the client as a seller of property.
- 4) Piecemeal sale of assets.
- 5) The acquisition of new or increased insurance coverage against environmental liability.

The auditor is advised to specifically look for any of these events and to be more professionally skeptical in their audit. Also, the auditor is cautioned against the possibility of a client's inappropriate delay of recording an environmental loss until all information is known. FASB Interpretation No. 14 requires the accrual of a loss contingency when the estimated loss is within a range of amounts, and auditors are advised by this *Alert* to consider this possibility.

Other pronouncements also influence the auditor in this area. According to Statement on Auditing Standards (SAS) No. 47, an auditor must assess environmental risk as part of the overall audit risk of a client. SAS No. 54 requires an auditor to plan the engagement to take into consideration the possibility that illegal acts (violations of laws or governmental regulations) could have occurred which may have a direct effect on the financial statements. If an auditor discovers an environmental matter that is an illegal act and has not been accounted for in accordance with generally accepted accounting principles, SAS No. 58 requires the auditor to qualify his opinion or to issue an adverse opinion. SAS 58 also requires an auditor to add an explanatory paragraph to his opinion which highlights the financial statement presentation of an environmental uncertainty in certain cases.

Another indication of the increased environmental awareness on the part of the auditing profession is the action taken by some of the Big Six accounting firms. Arthur Andersen has started an environmental management practice and has published a booklet on the subject. Gary Dominy, managing director of Arthur Andersen's Environmental Management Service practice, believes that "firms will have to become more aware that their clients in almost every industry will need some kind of expertise in understanding the environmental risk they face" (*Public Accounting Report* 1991). Small

manufacturers can be assured that all CPA firms, large or small, will soon start similar practices for two reasons: the CPA firms see the area as a chance for increased consulting fees, and the CPA firms seek to reduce their liability in the area. The possibility of litigation resulting from the issuance of a "clean" opinion to a firm with hidden environmental losses and the subsequent failure of the firm because of the cleanup costs does not appeal to CPA firms already facing significant liability in other areas.

The impact of environmental concerns on the small manufacturer is apparent. Compliance with the various federal and state laws can result in expenditures that could be better invested in firm-specific revenue enhancement or cost reduction strategies. This opportunity cost can negatively effect the firm's long-term potential for improving organizational effectiveness and increasing the economic value of the business. The requirement for the recognition of liabilities stemming from potential environmental problems may dramatically reduce the value of the business, inhibit its ability to raise additional capital, and restrict its options in term of corporate growth, diversification, or merger opportunities.

Strategic Implications

Based on the current rules and anticipated developments in environmental accounting, three areas of critical importance emerge:

1. Valuation of the business,
2. Divestiture and acquisition,
3. Access to capital.

Valuation of the Business

The immediate effects of changing environmental accounting practices on the firm's balance sheet is unclear. However, as additional environmental regulations specify the types of environmental liabilities that must be accounted for in an audit of the firm, the balance sheet will be required to recognize an appropriate, corresponding dollar liability. The liability would remain on the balance sheet until either the environmental issue in question ceases to be a physical liability or a full and complete cleanup has occurred. This may take decades to resolve and will depress the value of the firm in the long term.

The processes normally used in determining the value of a business (balance sheet approach and income statement approach) will be impacted by the requirement of recognizing the estimated liability associated with the specific environmental problems. In the case of the balance sheet approach to valuing the business, the increase in recorded long-term liabilities will directly alter the firm's value in a negative fashion. Although very crude and possibly simplistic, this "quick look" valuation method is widely used. The impact of an environmental contingency on the worth of the business is directly proportional to the magnitude of the liability recorded on the balance

sheet. Thus, more stringent accounting treatments regarding the measurement and disclosure of these contingencies will directly and, in most cases, adversely affect the value of the firm.

The earnings approach to business valuation will naturally need to reflect the new long-term environmental liability that will increase the levels of risk of the business, and therefore affect the potential stream of expected earnings. Each of the three most recognized techniques (Excess Earnings Method, Capitalized Earnings Method, and the Discounted Future Earnings Method) involve some objective evaluation of the risk of the firm's earnings. Consider the amount of uncertainty introduced into these valuation techniques by the recognition on the balance sheet or in the financial statement footnotes of a long-term environmental liability whose actual amount can only be approximated. Earnings in any future time period must be discounted by some probabilistic approximation of the future expense associated with the magnitude of the risk and the liability of the firm for its correction. The recognized environmental liability must be considered as a potential factor that may result in a severe reduction in future income streams. Lower potential revenues convert directly into a lower value of the business.

Divestiture and Acquisition

From a corporate perspective, the divestiture of a firm that has been identified as having an environmental problem will be extremely complicated and potentially impossible. As discussed above, traditional methods of valuation will likely result in a dramatic decrease in the value of the business when the risk of the potential long-term expenses or liabilities are factored into the equation. This decline creates a condition where the owner cannot find a buyer willing to pay a price that allows the owner to divest the business in a reasonably profitable manner. In reality, the probabilistic nature of this potential environmental liability may make interested buyers avoid the firm entirely and search for an acquisition that is not burdened by an environmental problem. Many small manufacturers view being acquired by larger firms as a preferred "exit strategy."

Acquisition of firms with an identified environmental problem may also create significant problems for the acquirer. The acquiring firm may find it impossible to justify to its stockholders the risk that they would be assuming by acquiring a firm already identified as "at risk." This may greatly restrict the options of small manufacturers who depend upon being acquired by larger firms with the resources to finance the growth necessary to achieve higher levels of performance.

One documented example of a small, regional manufacturing firm facing large environmental fines and cleanup costs resulting from an acquisition is Foamex. In 1990, this firm purchased Recticel Foam Corporation, a Belgium owned company operating in rural Tennessee. According to court documents, employees of Recticel allegedly disposed of hazardous waste on an employee's farmland between 1975 and 1986. Foamex is now facing a \$22.5 million civil lawsuit from adjoining landowners, as well

as criminal charges in federal court. They have also incurred substantial costs associated with monitoring the site before cleanup. Even though the current management of Foamex did not participate in and had no knowledge of the waste disposal, the firm finds itself facing financial ruin from previous environmental action that was beyond their control (Richey 1993).

Access to Capital

The third major area of concern is the access to external capital. Traditional lending institutions evaluating the potential borrower's balance sheet will quickly discover that the environmental liability "land mine" produces financial ratios that may not be acceptable. Also, the issue of a secured lender's potential liability for the environmental cleanup of collateralized property can reduce a bank's willingness to lend. Lawsuits in these cases have resulted in inconsistent rulings concerning bank liability. Because of the unsettled nature of the issue, many in the banking profession are still hesitant to make loans to certain types of firms (Moses 1993).

Banks have always been conservative in their lending practices toward small businesses. In recent years, the lending practices of commercial banks have become increasingly constrictive and the noted "credit crunch" has created problems throughout our economy. Consider the reaction of the commercial banking community to the potential risk represented by environmental liabilities. Normal working capital may be difficult to obtain, not to mention the capital normally needed for expansion and growth. In a period of time when the economy needs the manufacturing sector to create permanent, high-paying jobs, bank lending could be further restricted due to the environmental risk.

Equity capital may be just as difficult to attract due to an unwillingness on the part of most investors to choose a firm "at risk" over one that is risk free on the environmental issue. Investment will logically flow away from the more risk prone alternatives toward those which are considered safer. In either situation, bank or equity financing, management will be faced with increased difficulties in obtaining external capital.

Conclusions

The business community should be made aware of the changing accounting practices concerning environmental issues and the impact on small manufacturing firms. Future contingent liabilities can dramatically affect the long-term ability of the firm to grow and operate profitably. The Financial Accounting Standards Board is aware of the deficiencies of the present accounting treatment in the area, and additional FASB action is inevitable. This action may result in more stringent recognition and disclosure rules which must be applied to insure the firm's financial statements are in compliance with generally accepted accounting principles. According to the American Institute of Certified Public Accountants' Code of Professional Conduct, a CPA can not

issue an unqualified ("clean") opinion on financial statement unless they are prepared in accordance with these principles. This factor may increase the difficulties associated with all three areas previously discussed. External users of financial statements will be reluctant to lend, invest, or acquire a firm with anything less an unqualified audit opinion.

As discussed, small businesses may be seriously limited in the areas of valuation, divestiture and acquisition, and access to capital because of the accounting and auditing treatments of environmental matters. Also, the increased attention of the accounting and auditing professions will make the less stringent treatments of the past unacceptable. Managers, faced with increased external pressure to record or disclose environmental contingencies, will be required to investigate prior actions, alter current decisions, and plan future activities with these issues in mind. Informed planning and control for these factors will enable small manufacturers to survive and thrive in the future.

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