THE GAP IN GAAP

AN EXAMINATION OF ENVIRONMENTAL ACCOUNTING LOOPHOLES

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ABOUT THE ROSE FOUNDATION:

The **Rose Foundation for Communities and the Environment** is a grantmaking public charity dedicated to nurturing positive intersections between the environment, the economy and communities. In addition to the Environmental Fiduciary Project, the Foundation is active in promoting renewable energy and supports a variety of environmental, economic development, and consumer projects. (www.rosefdn.org)

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INTRODUCTION & EXECUTIVE SUMMARY

Publicly traded corporations in the United States are required to report all financially material events and conditions to their shareholders in annual filings with the Securities and Exchange Commission (SEC). However, information developed over the last 10 years through public and private sector research conducted by the U.S. Environmental Protection Agency, Price Waterhouse LLP, the Congressional General Accounting Office and others shows that significant environmental liabilities are often misstated or under reported in corporate filings and communications with shareholders.

This paper explores how loopholes in financial reporting requirements allow companies to hide or downplay the financial significance of environmental problems such as toxic leaks, historic contamination, asbestos, compliance with environmental laws, response actions, defense and legal fees, property damage, business interruption, and tort claims. Although the analysis in this paper is focused on these types of near and intermediate-term liabilities, the authors believe that further analysis would show that these same reporting loopholes also inhibit disclosure of longer-term liabilities related to macroeconomic environmental conditions such as global climate change.

In particular, this paper examines the *"Gap in GAAP"* – the loopholes in Generally Accepted Accounting Principles (GAAP) that allow environmental accounting practices similar to the irregularities that contributed to the massive fraud that has been attributed to Enron and a number of other companies over the last few years. We track the history of attempts by the American Institute of Certified Public Accountants, the Financial Accounting Standards Board, the Securities and Exchange Commission and the U.S. Congress to address GAAP's shortcomings, and explain why each of these attempts at reform has failed to close significant environmental accounting loopholes.

This paper closes with recommendations on how the Securities and Exchange Commission could close significant gaps in corporate environmental disclosures by drawing from two new standards recently released by the American Society for Testing and Materials. These standards call for a robust **expected value probability analysis** to educate disclosure decisions and require **aggregation of environmental liabilities** before determining materiality. Adoption of these standards by the SEC has been endorsed by the Investor Network on Climate Risk, an association of state and city treasurers and labor funds representing over $1 trillion in combined assets, as well as more than 30 charitable foundations, several leading mutual funds, labor organizations and other investor networks. For a full list of petition endorsers, please visit www.rosefdn.org.

Finally, this paper is a call for enforcement by the SEC of its disclosure requirements and materiality standards. The viability of our nation's financial markets is vested in investors' ability to trust the numbers that come out of Wall Street. The SEC is the guardian of that trust.

We recognize that the intersection of accounting standards, estimation of contingent liabilities, and corporate environmental performance is a complex and challenging area. This paper does not attempt to cover all of the many issues related to the impact of corporate environmental liabilities on financial performance and shareholder value. Readers interested in that topic may wish to consult the Rose Foundation's publication, *"The Environmental Fiduciary: The Case for Incorporating Environmental Factors into Investment Management Policies (2002),"* available at www.rosefdn.org. We also recognize that many companies, such as those that have become signatories to the CERES Principles and the Global Reporting Initiative, have invested considerable resources into developing top-flight environmental reporting systems. Many companies deserve tremendous kudos for grappling with and solving complex environmental reporting problems. However, we do suggest that these companies risk being undercut in the short term by competitors that do not adhere to the same standards of financial transparency, and that investors are at risk from companies that practice "Enron accounting" with shareholders' money.

As with other Rose Foundation publications, our goal is to spark dialogue and encourage fresh thinking, not articulate the final word on the topic. Comment and feedback is welcomed and encouraged. Please reach us at rosefdn@earthlink.net.

TWO MAJOR GAPS INSIDE OF GAAP

Corporate financial reporting of environmental costs and liabilities is governed by a set of practices and principles known as the Generally Accepted Accounting Principles (GAAP). These principles are set forth in rules, guidelines and statements of position issued by organizations including the Financial Accounting Standards Board (FASB), the American Institute of Certified Public Accountants (AICPA), and the Securities and Exchange Commission (SEC).

However, despite the overall value of Generally Accepted Accounting Principles in accurate and uniform financial reporting, in practice many companies appear to use GAAP as a ceiling to limit disclosures rather than a foundation on which to build financial transparency. This paper focuses on two common reporting practices that are acceptable within the framework of GAAP, but create loopholes that allow corporations to underreport their environmental liabilities, effectively misleading investors and other financial statement users.

GAP IN GAAP #1: REPORTING ONLY THE MINIMUM OF A RANGE OF POSSIBLE ENVIRONMENTAL LIABILITIES

Under current law, SEC registrants must disclose environmental contingencies in their financial statements if those contingencies are material[1] to the business or financial condition of the company.[2] Even further, SEC registrants must accrue their estimated environmental liabilities with a charge to income if, prior to issuing the financial statements, information indicates that two circumstances are met:

a) It is "probable"[3] that a liability has been incurred at the date of the financial statements;
b) The loss can be reasonably estimated.[4]

If a liability is "probable" but not reasonably estimable, then the corporation does not have to accrue the liability as a charge to income, but only must disclose the nature of the contingency in the financial statement.[5] However, if "information is available"[6] that indicates that the estimated amount of the loss is within a range, and a certain number within the range that appears "at the time to be a better estimate than any other amount within the range,"[7] the corporation should accrue that amount."[8] If no

1 The Supreme Court has held that a fact is material if there is a substantial likelihood that the fact would have been viewed by the reasonable investor as having significantly altered the "total mix" of information made available. See TSC Industries v. Northway, Inc., 426 U.S. 438, 96 S. Ct 2162, 48 aL. Ed. 2d 757 (1976).

2 17 CFR Section 228.101, 17 CFR Section 228.103, 17 CFR Section 228.303

3 FASB, Statement of Financial Accounting Standards No. 5, "Accounting for Contingencies" (March 1975)

4 FASB, Statement of Financial Accounting Standards No. 5, Accounting for Contingencies" (March, 1975)

5 FASB, Statement of Financial Accounting Standards No. 5, "Accounting for Contingencies" (March 1975)

6 FASB, Interpretation No. 14, "Reasonable Estimation of the Amount of Loss" (September 1976)

7 FASB, Interpretation No. 14, "Reasonable Estimation of the Amount of Loss" (September 1976)

8 FASB, Interpretation No. 14, "Reasonable Estimation of the Amount of Loss" (September 1976)

amount within the range is a better estimate than any other amount, according to GAAP, the minimum amount shall be accrued.[9]

That is, under the current GAAP framework, it is lawful for corporations to internally develop a range of estimates for their environmental liabilities but then maintain that no particular estimate within that range is more likely than any of the other estimates. Therefore, a company is free to accrue only the minimum of the range of possible environmental liabilities in its financial statements for shareholders. This loophole has led to, and could even be argued to encourage, the practice of disclosing and accruing the smallest estimate defensible rather than the full range of estimates that could likely be borne out. Investors and other financial statement users may be misled by this practice.

GAP IN GAAP # 2: USING A PIECEMEAL APPROACH TO DETERMINE WHETHER ENVIRONMENTAL LIABILITY IS MATERIAL AND MUST BE DISCLOSED

As stated above, SEC registrants must disclose "material" environmental liabilities in their financial statements and accrue these liabilities if they are probable and estimable. However, corporations are not instructed to aggregate liabilities, and as a result, corporations can significantly under report their total exposure. For example, a corporation may have individual environmental liabilities and costs associated with hundreds of individual sites. Assessed separately, liabilities associated with these sites may not be deemed "material" enough to report. However, assessed collectively, these sites may represent a significant financial liability. Combined with a record of ongoing regulatory non-compliance or other environmental performance problems, this could also indicate a pattern of management disregard for the strategic value of environmental performance. In short, a company's aggregate liabilities could be a crucial part of the total mix of information made available to shareholders – unfortunately, this information is not always available under current reporting practices.

A HYPOTHETICAL ILLUSTRATION OF THE PIECEMEAL APPROACH

As a hypothetical example, consider Company X, which owns 30,000 older retail gas stations with underground storage tanks. In accordance with real world experience, we assume that most of these tanks may have experienced leaks, leading to soil or groundwater contamination. Under GAAP, and in accordance with reporting practices that have historically been accepted by the SEC, Company X can maintain that each individual gas station represents an individual and unique circumstance because each is in a separate location, with different zoning, geological, hydrological and local or state regulatory issues. Therefore, Company X is free to assess the environmental liability associated with each gas station on a site-by-site basis. Since it is unlikely that each individual site's costs would exceed a few hundred thousand dollars – an immaterial amount compared to the total asset base of Company X – all of these liabilities can be deemed immaterial for the purposes of SEC reporting. This practice of piecemealing environmental problems site by site to determine materiality, instead of aggregating liabilities, allows corporations to under report environmental liabilities to shareholders.

9 FASB, Interpretation No. 14, "Reasonable Estimation of the Amount of Loss" (September 1976)

The two types of practices – piecemealing and only reporting the known minimum – have led to significant under reporting of environmental liabilities. This under reporting has been documented by a number of private and government investigations. A summary of some of these reports is provided in the following section.

EVIDENCE OF UNDER REPORTING

Over the last ten years, a series of public and private sector studies have documented a pattern of widespread under reporting of environmental liabilities. This section presents five of the principal studies, covering time periods ranging from 1992 - 2002.

GAO REPORT ON INSURANCE INDUSTRY DISCLOSURE PROBLEMS (1993)

In 1993, the General Accounting Office (GAO) flagged the problem of under reporting in a study entitled "Environmental Liability: Property and Casualty Insurer Disclosure of Environmental Liabilities,"[10] which found that insurance industry disclosure of Superfund toxic cleanup liabilities was very poor and put investors at risk.

The study reviewed the annual reports of the top sixteen publicly held property and casualty insurance companies. Only two of the sixteen disclosed dollar amounts related to environmental claims in their annual reports for 1990, and only three of the sixteen made this disclosure for 1991. However, five of the same insurance companies in 1990 and eight in 1991 had stated that they were involved in potentially costly litigation over environmental claims that might have a negative financial impact on the company. Upon further inquiry by the SEC, several more firms disclosed environmental costs and expenses related to the claims.

According to the GAO study, the insurance companies claimed that they could not estimate the incurred environmental claims costs or limitation expenses because "uncertainties" prevented the companies from estimating or reporting these liabilities and that these "uncertainties" were due to evolving judicial interpretations of, and inconsistent conclusions about, legal liability for environmental cleanup. The GAO's findings can be summarized in two points:

- Many companies did not know how to estimate contingent environmental liabilities.
- Many companies practiced piecemeal accounting, looking at liabilities individually, rather than in the aggregate.

Ironically, when pressed by the SEC several of these insurance companies amended their disclosures, apparently finding that, despite uncertainties, these same environmental claims were reasonably estimable and could be disclosed.

PRICE WATERHOUSE LLP REPORT ON ENVIRONMENTAL LIABILITY DISCLOSURE (1992)

In 1992 Price Waterhouse LLP (the legacy firm of what is now PricewaterhouseCoopers) surveyed 523 companies, and 62 percent had known environmental liabilities that had not been recorded in their financial statements in a

10 GAO, "Environmental Liability: Property & Casualty Insurers' Disclosure of Environmental Liabilities (1993)

quantitative manner. The survey also indicated that measurement of remediation costs was difficult and that practices were mixed with regard to the timing of recording of environmental remediation liabilities.[11] Two subsequent studies by Price Waterhouse LLP found substantially the same trend.

TELLUS INSTITUTE SURVEY OF FINANCIAL ANALYSIS BY U. S. MANUFACTURING FIRMS (1995)

In a survey of U.S. manufacturing firms conducted by the Tellus Institute and commissioned by EPA's Environmental Accounting Project,[12] approximately two thirds of the respondents indicated that, for the purposes of investment financial evaluations, they did not regularly calculate cost values for such items as environmental fines and penalties, personal injury, future regulatory compliance costs and natural resource damages.

With respect to Superfund remediation liabilities, it was found that approximately 90% of all respondents failed to regularly determine these liability costs for inclusion in project financial analyses. The most commonly cited barriers to calculating Superfund liability costs were the difficulties associated with estimating the likelihood, magnitude and timing of the liability costs.

U. S. EPA STUDY OF ENVIRONMENTAL COMPLIANCE REPORTING (1998)

In 1998, the U. S. EPA's Office of Enforcement and Compliance Assurance completed a study[13] that found that 74% of companies failed to report in their 10Ks cases where environmentally related legal proceedings could result in governmental monetary sanctions over $100,000. This is a clear violation of one of the few bright-line materiality / reporting guidelines provided by the SEC (Regulation SK 103, which requires disclosure of governmental monetary sanctions which may result in penalties of $100,000 or more). The EPA study further found that only 26% of civil and administrative proceedings involving penalties were correctly disclosed in the company 10-K reports. Even worse, only 16% of proceedings involving court-ordered Supplemental Environmental Projects (SEPs) and just 4% of proceedings involving the Resource Conservation and Recovery Act (RCRA) were properly disclosed. In short, the study documented a massive breakdown in disclosure practices, as well as a troubling lack of enforcement by the SEC of its own disclosure regulations.

11 Price Waterhouse LLP, Accounting for Environmental Compliance: Crossroad of GAAP, Engineering and Government - Second Survey of Corporate America's Accounting For Environmental Costs, 1992.

12 Tellus Institute, Environmental Cost Accounting for Capital Budgeting: A Benchmark Study of Management Accountants, September 1995

13 This study was conducted by Abt Associates Inc., Cambridge, Massachusetts, under Contract #68-W98-005, WA 1-07 and WA-2-07 but never formally released to the public. It was discussed by Nicholas Franco, in his paper "Corporate Environmental Disclosure: Opportunities to Harness Market Forces to Improve Corporate Environmental Performance" presented at the U.S. Environmental Protection Agency Conference on Environmental Law, Keystone, CO March 8-11, 2001

SEC SURVEY OF THE FORTUNE 500 (2002)

In response to the wave of corporate accounting scandals in 2001 that caused trillions of dollars of shareholder wealth to simply evaporate, in December 2001 the SEC's Division of Corporation Finance determined it would monitor the annual reports filed by all Fortune 500 companies with the Commission in 2002[14] as part of its process of reviewing financial and non-financial disclosures made by public companies. The survey of Fortune 500 filings focused on disclosures that appeared to be critical to an understanding of each company's financial position and results, but which, at least on their face, seemed to conflict significantly with Generally Accepted Accounting Principles or SEC rules, or to be materially deficient in explanation or clarity.

Based on the limited publicly released information about the survey, the Division of Corporation Finance apparently found significant under reporting in the area of environmental and product liability. The staff issued comments relating to environmental and product liability disclosure to a number of oil, gas and mining companies, as well as to several manufacturing companies. In these comments, the SEC pointed the companies to the guidance issued by the Financial Accounting Standards Board, the American Institute of Certified Public Accountants and the SEC itself which generally instruct companies with environmental and product liabilities to disclose:

- The nature of a loss contingency.
- The amount accrued.
- An estimate of the range of reasonably possible loss.
- Significant assumptions underlying the accrual and the cost of litigation.

In addition to finding that many companies did not provide adequate disclosure relating to those items, the staff also found that companies could improve their disclosures of contingent environmental liabilities required by SEC Staff Accounting Bulletin # 92.[15] (This is discussed in full in the SAB 92 section, below), and urged companies with material contingent liabilities to carefully review their disclosures and ensure that they include all required information. The SEC also urged companies to provide in the Management Discussion and Analysis portion of their annual reports a meaningful analysis as to why the amounts charged in each period were recorded and how the amounts were determined.

Ironically, although the SEC reported finding many instances of inadequate public disclosure by its registrants, very little information was made publicly available about which specific companies were warned about what specific disclosures. So the Fortune 500 survey was both heartening and troublesome. On the one hand, investors should be encouraged that the SEC is actively engaging in dialogue with registrants designed to improve the quality of disclosure of financially material environmental conditions. However, since investors were left wondering which of the nation's largest oil, gas, mining and manufacturing companies were warned about inadequate disclosures and what was the precise nature of these identified disclosure shortfalls,

14 http://www.sec.gov/divisions/corpfin/fortune500rep.html

15 Staff Accounting Bulletin No. 92, 58 Fed. Reg. 32,843 (June 14, 1993) codified at 17 C.F.R. part 211 (SAB 92)

confidence in SEC's oversight is necessarily tempered by lingering questions about which portfolio companies may face greater liabilities than their public filings suggest.

PAST ATTEMPTS TO PATCH THE GAP IN GAAP

Throughout the past decade, a number of efforts were undertaken to address the identified under reporting problems. But, as indicated by the SEC's most recent review of Fortune 500 company 10Ks, to date these efforts have fallen short. This section describes various regulatory, legislative and accounting industry responses, and discusses why, to date, actions taken by the Securities and Exchange Commission, the American Institute of Certified Public Accountants, the American Society for Testing and Materials, and most recently the U.S. Congress have all proved inadequate.

PATCH #1: SEC STAFF ACCOUNTING BULLETIN 92

When problems of under reporting were first documented by the General Accounting Office and Price Waterhouse LLP, the SEC formed a committee in early 1992 to study the issues. By 1994, the study process was completed and the SEC released Staff Accounting Bulletin (SAB) No. 92.[16] This document provided important new guidance on the identification and reporting of contingent environmental losses.

WHAT SAB 92 REQUIRES

Staff Accounting Bulletin No. 92 provides specific guidelines to corporations on the identification and reporting of contingent environmental losses. Most significantly, SAB 92 corrected the clearly misleading reporting practice of refusing to accrue and even report <u>any</u> environmental liability. In other words, before SAB 92, corporations could claim that, although a liability was probable, not enough information was available to develop a single estimate and therefore a range of estimates could be developed with the minimum of the range being zero. That is, corporations with significant environmental liability were accruing the zero cost for those liabilities because zero did represent the minimum of the range. As this was one of the principle problems identified by the GAO, the SEC should rightly be commended for closing this loophole. Although FASB Interpretation No. 14, Reasonable Estimate of a Loss, had already substantially stated the same position, SEC staff removed any possible confusion over the interpretation of FASB by stating:

> 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 [emphasis added].[17]

Furthermore, SAB 92 specifically advised SEC registrants <u>not</u> to simply list zero as the minimum of the range of possible estimates for the ultimate cost of the environmental liability. In SAB 92, SEC stated:

16 Staff Accounting Bulletin No. 92, 58 Fed. Reg. 32,843 (June 14, 1993) codified at 17 C.F.R. part 211 (SAB 92)

17 Staff Accounting Bulletin No. 92, 58 Fed. Reg. 32,843 (June 14, 1993) codified at 17 C.F.R. part 211 (SAB 92)

> While the range of costs associated with the alternatives may be broad, the minimum clean-up cost is **<u>unlikely</u>** to be zero [emphasis added].[18]

In other words, in an attempt to stop corporations from listing the minimum of the range as zero, or failing to list an estimate altogether, the SEC staff stated in no uncertain terms that an actual estimate was required.

<u>THE SHORTFALLS OF SAB 92</u>

Notwithstanding the very specific language pointing out the SEC's preference for a robust estimate, and despite language outlining the importance of a robust estimate of environmental costs, <u>SAB 92 did not make it unlawful for corporations to present a misleading account of their environmental liabilities</u> to financial statement users. For the most part, the direction given by SAB 92 was precatory. Because of this, corporate practices did change, but not by very much.

Instead of simply reporting zero as the minimum of the range, post-SAB 92 it became accepted practice for a company to develop a range of estimates internally, but to only accrue and report the low end of the range to shareholders. Defaulting to the known minimum was justified by the "uncertainty" of the environmental cost estimates and by language in SAB 92 which stated that if future costs were uncertain, corporations should develop a range of amounts and just accrue and report the "known minimum." The understanding of "known minimum" became further narrowed to mean what management knew it would spend in the next fiscal year for environmental costs and liabilities. So, while SAB 92 moved most minimum environmental disclosures above zero, it still did not ensure financial transparency or require companies to fully disclose material environmental liabilities to their shareholders.

SAB 92: WHAT'S WRONG WITH THIS PICTURE?

Assume that Corporation Z has hundreds of sites under remediation. It has hired an environmental engineering consultant to develop detailed future cost estimates for these liabilities so that it can negotiate insurance settlements for the claims. However, these cost estimates are not reported to shareholders. Instead, they are cloaked in attorney-client privilege as part of the insurance negotiations.

In its SEC reporting, Corporation Z states that it faces a wide range of potential liabilities, and that a best estimate within the range is "not reasonably estimable." Therefore, Corporation Z reports the fallback requirement of the "known minimum" allowed under SAB 92, which it calculates as the amount the company has contracted to spend in the current calendar year. Consequently, during a number of years, which can span as much as a decade or even more in the instance of large or complex contamination situations, management can avoid disclosing what internally is known to be the more realistic cost. Throughout that period, Corporation Z would be in compliance with SAB 92, yet material financial information would be hidden from shareholders

Similar under reporting may occur for toxic tort liabilities. Corporations facing torts may report claims settled, or settled in principal, rather than provide shareholders with forecasts of total expected costs for the future. Shareholders ultimately find out about the total expected liability only after large lump sum settlements or judgments occur, or when the company files for bankruptcy.

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18 Staff Accounting Bulletin No. 92, 58 Fed. Reg. 32,843 (June 14, 1993) codified at 17 C.F.R. part 211 (SAB 92)

PATCH # 2: AICPA STATEMENT OF POSITION 96-1

At the same time that the SEC was responding to the GAO study by developing SAB 92, the Accounting Standards Executive Committee (AcSEC) of the American Institute of Certified Public Accountants convened a committee to improve and narrow the manner in which some environmental liabilities were recognized, measured and disclosed. By October 1996, the Accounting Standards Executive Committee issued authoritative guidance with its Statement of Position (SOP) 96-1, "Environmental Remediation Liabilities."[19] As is customary, the accounting guidance contained in the document was cleared by the Financial Accounting Standards Board.

WHAT AICPA (SOP) 96-1 REQUIRES

The objective of AICPA (SOP) 96-1 was to provide accounting guidance which would provide useful tools and benchmarks to aid corporations in recognizing and recording environmental remediation liabilities triggered as a result of a provision of Superfund, the corrective-action provisions of the Resource Conservation and Recovery Act (RCRA), or analogous state and non-United States laws and regulations.

THE LONG AND WINDING ROAD TO SITE CLEAN UP

The road to Superfund or RCRA site clean up is a long one. There are many benchmarks along the way. The following discussion is a very abridged outline of the process of clean up of a Superfund site. RCRA clean up follows a different but very similar process.

First the Superfund site is identified and potentially responsible parties (PRPs) are named. A committee of PRPs is formed and environmental engineers are called in to perform a study to determine the nature and extent of hazardous substances at a site. During this remediation investigation, a feasibility study is performed in which remedial actions are suggested and one is recommended. The EPA identifies the remediation efforts that should be used and drafts a Proposed Remedial Action Plan. After reviewing comments on the Proposed Remedial Action Plan, the EPA issues a Record of Decision. Finally, often many years later, the Remedial Action begins. It may take several more years, or even decades, for the actual remediation to be completed.

AICPA (SOP) 96-1 outlined the procedural benchmarks and indicated that specific types of reporting should occur at specific benchmarks. Primarily, AICPA (SOP) 96-1 clarified that during the Remedial Investigation and Feasibility Study phase, a corporation should report the cost of the study. Secondarily, AICPA (SOP) 96-1 clarified that once the study was complete, and an action plan was chosen, a corporation should disclose an estimated cost of the action plan chosen.

THE SHORTFALLS OF AICPA (SOP) 96-1

While AICPA (SOP) 96-1 provided certain benchmarks in the toxic clean up process that triggered better disclosure, it also created a serious time-lag in the disclosure of potentially costly toxic contamination problems. Although AICPA (SOP)

19 Statement of Position 96-1, "Environmental Remediation Liabilities," American Institute of Certified Public Accountants (October 1996)

96-1 recommends disclosure at whatever point information becomes available, it does not require reporting an estimate of the total cost of the clean up itself until the Remedial Investigation and Feasibility Study is substantially complete. During the entire time that a corporation is conducting the Remedial Investigation and Feasibility Study – which may be several years – AICPA (SOP) 96-1 only requires corporations to report the known minimum, which is the cost of the study rather than the clean up itself. Therefore, full disclosure may be delayed for a number of years until the study is complete.

Furthermore, the reporting requirements outlined in AICPA (SOP) 96-1 are limited in scope. While AICPA (SOP) 96-1 clearly indicates that estimates must be disclosed as the Remedial Investigation and Feasibility Study nears completion, AICPA (SOP) 96-1 does not give guidance on how and when corporations should report liabilities associated with sites where an official Remedial Investigation / Feasibility Study or RCRA corrective action study is not undertaken. While companies are free to use the guidance contained in AICPA (SOP) 96-1 for non-RCRA or non-Superfund sites, it is by no means required. Therefore, a large number of non-Superfund and non-RCRA sites may escape the guidance of AICPA (SOP) 96-1.

Finally, AICPA (SOP) 96-1 only provides guidance on accounting and reporting for environmental liability involving RCRA and Superfund sites. It does not provide guidance on other vital environmental disclosure issues such as site closure costs, compliance with environmental laws, defense and legal fees, and damages arising from ecological damage, property damage, business interruption and tort claims.

PATCH # 3: THE ASTM STANDARDS

Around the same time that the AICPA convened its committee to study the problems involved in environmental disclosure, the West Conshohocken, Pennsylvania-based American Society for Testing and Materials (ASTM) convened a committee to develop guidelines and to set forth methodologies that corporations should use to develop appropriate estimates of environmental costs and liabilities.

In the beginning of 2001, after a long seven-year process including participants from many disciplines such as accounting, engineering and geology as well as participation from affected industry groups, the ASTM Committee released two standards to guide corporations in estimating and disclosing environmental liabilities and costs:

- **Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters E 2137-0**.[20] This standard proposed methods for enhancing reporting of environmental liabilities by recommending that corporations incorporate probability in the development of estimates.

20 American Society for Testing and Materials "Standard Guide for Estimating Monetary Costs and Liabilities E 2137-0"

- **Standard Guide for Disclosure of Environmental Liabilities E 2173-0** [21] This standard advises corporations how to aggregate environmental liabilities so that shareholders and other financial statement users would have a better understanding of the full material liabilities corporations face.

Since these two ASTM standards are a statement of industry best practices rather than binding regulation or accounting guidance, they do not carry the same force as SEC or AICPA guidance documents**.**

WHAT THE ASTM STANDARD GUIDE FOR ESTIMATING MONETARY COSTS AND LIABILITIES FOR ENVIRONMENTAL MATTERS E 2137-0 REQUIRES

While it does not require specific estimation methodologies, the ASTM standard on estimating environmental liabilities recommends that in most instances corporations should go beyond developing only a range of possible costs and disclosing the known minimum. At the heart of the standard is a recommendation that instead of simply reporting the lowest possible estimate, cost estimates should take into account the range of possible costs and the probability that these possible costs could occur. Specifically, in almost all circumstances the standard advises using an *expected value* methodology to derive this type of estimate. In rare instances in which there is not enough information available to derive a robust expected value, the standard calls for a hierarchy of alternative methodologies, ranging from most likely value to range of values.

A VERY SIMPLIFIED EXAMPLE ILLUSTRATING THE *EXPECTED VALUE* METHODOLOGY

Corporation Y has a hazardous waste contamination problem. Expert consultants hired by the company have developed three possible clean up scenarios. Scenario A (the lowest cost option) involves containment of soil and treatment on site to industrial levels at a cost of $1 million. However, since most of the plans for the future use of the site involve some level of residential development, it is only 20% likely that Scenario A (the industrial use alternative) will evolve. Scenario B involves the full removal of the soil and reduces any residual contamination to accepted residential exposure levels. This work would be expensive and would cost $8 million. It is 40% likely that this scenario will occur. Scenario C is a hybrid of the first two. It involves the full removal of contaminated soil in some areas, and *in situ* treatment and containment in other areas. It is 40% likely that this scenario will occur. Scenario C would cost $4 million.

Because "no amount within the range is better than any other amount" - that is, two of the options described each have a 40% probability of occurring - current GAAP mandates that Corporation Y accrue only the $1 million option at the low end of the range, even though this clean up scenario is less likely than either of the other, more expensive options under consideration. Because this "known minimum" doesn't reflect the probability of what the company may actually have to spend on clean up and remediation, it would be misleading to financial statement users.

The ASTM standard recommends that Corporation Y derive a weighted average of these three scenarios based on their probability and accrue this weighted average or “expected value.” The weighted average of all three scenarios combined is $5 million. Therefore, the expected value of the contamination clean up liability is $5 million. The accrual of $5 million would help financial statement users better understand the potential clean up costs because it is based on the probability that either the $4 million scenario or the $8 million scenario is more likely than the cheapest option.

According to ASTM, use of this type of probability-weighted average or "expected value" will provide the most robust and comprehensive estimate of actual clean up costs because it takes into account not only projected costs, but the probability that the various scenarios that underlie the projections will actually occur. This differs from the current regulatory framework, which allows a corporation to report the "known minimum," even if a more expensive outcome is more likely.

WHY ASTM ESTIMATION STANDARD E 2137-0 HELPS CLOSE THE GAP IN GAAP

Unlike SAB 92 and AICPA (SOP) 96-1, which effectively allow corporations to accrue only the known minimum of a range of possible outcomes, the expected value methodology suggested by the ASTM estimation standard offers a much more useful understanding of a corporation's environmental liabilities for investors and financial statement readers because it takes into account the likelihood of various cost estimates and their probabilities.

This same expected value methodology can be used to project liability estimates with regard to a myriad number of instances – not just the clean up of Superfund and RCRA sites. Such instances can include pollution control costs for current operations, costs of future site restoration or closure, and costs other than remediation such as toxic tort liabilities, property damage and natural resource damage, as well as costs associated with global climate change (which can be some of the largest future liabilities facing corporations) and costs of voluntary remediation undertaken at the discretion of management.

However, since the expected value approach is currently only a voluntary guideline, companies that wish to use a more creative interpretation of GAAP are free to do so. If the SEC made the use of the expected value methodology mandatory, one of the major loopholes in GAAP would be closed. Corporations would have to report a more accurate estimate of the extent of their probable environmental liability exposure – not just the known minimum.

WHAT THE ASTM STANDARD GUIDE FOR DISCLOSURE OF ENVIRONMENTAL LIABILITIES E 2173-0 REQUIRES

At the same time that the ASTM was tackling the problems associated with reporting only the known minimum, the committee was also trying to address the problem practice of "piecemealing" environmental liabilities and the consequent under reporting of liabilities that may be individually immaterial but collectively very expensive. Again, since this ASTM disclosure standard is a statement of industry best practices rather than a binding regulation or accounting guidance, it does not carry the same force as SEC or AICPA guidance documents. However, like its sister environmental liability estimation standard, ASTM's environmental liability disclosure standard is designed to close a significant part of the gap in GAAP.

As outlined at the start of this paper, the practice of piecemealing environmental problems site by site, instead of aggregating liabilities, has been widely flagged as a major obstruction to providing shareholders with an accurate portrayal of a company's true environmental liability. Closing this loophole is one of the simplest, but most important steps that SEC could take to limit the under reporting of financially material environmental liabilities.

THE PROBLEM WITH DISAGGREGATING ENVIRONMENTAL LIABILITY

Consider again the hypothetical case of Corporation X, owner of over 30,000 older retail fueling stations which have underground storage tanks. Numerous studies as well as practical experience suggests that most of these tanks are likely to have experienced leaks or similar problems leading to soil and/or groundwater contamination. Therefore, certain environmental costs would be highly likely and clearly estimable based on historical information at similar sites.

Because of the high expectation of contamination, by law every station's storage tanks had to be retrofitted to provide leak detection and control systems. For those sites where leaks were discovered, a process was established for removing and replacing the tanks, removing visibly contaminated soils, and studying remaining soils and groundwater to determine the extent of soil and groundwater remediation required. As the owner of the fueling stations, Corporation X would have accurate information on the ages of the tanks; contractual information on estimated budgets for retrofitting the tanks; and its own as well as state and federal information on the probability of tank leaks and resulting clean up costs at similar sites. Based on typical industry numbers, total compliance and clean up estimates for these leaks would range from approximately $1 billion to $2.5 billion.

However, these numbers did not appear in Corporation X's Annual Report to shareholders. Creatively exercising interpretations of GAAP that were consistent with SEC enforcement patterns, Corporation X reasoned that each gas station was a unique site with unique circumstances and costs, and therefore the materiality test could be run on a site-specific basis. Since it was highly unlikely that an individual site's costs would exceed a few hundred thousand dollars, all of these liabilities were deemed immaterial for the purposes of SEC reporting. An interested reader might compare this hypothetical example with 10K filings of major U.S. oil companies within the last five years and draw their own conclusions about differences in how these companies portrayed liabilities related to leaking underground tanks and associated costs of remediation.

WHY ASTM DISCLOSURE STANDARD E 2173-0 HELPS CLOSE THE GAP IN GAAP

The ASTM Standard Guide for Disclosure of Environmental Liabilities E 2173-0 closes a major gap in GAAP by directing corporations to aggregate their liabilities. Aggregation is not addressed in SAB 92 and AICPA (SOP) 96-1, leaving companies free to exercise a high degree of creativity in determining what constitutes a "like circumstance." The standard states:

> Disclosure should be made when an entity believes its environmental liability for an individual circumstance or its environmental liability ***in the aggregate*** (emphasis added) is material. These amounts include, but are not limited to, damages attributed to the entity's products or processes, cleanup of hazardous waste or substances, reclamation costs, fines, and litigation costs.[22]

22 American Society for Testing and Materials "Standard Guide for Disclosure of Environmental Liabilities E 2173-0"

The standard also provides guidance that helps corporations determine when and whether a disclosure is warranted and the content of the disclosure in accompanying financial statements. However, since it is currently only a voluntary guideline, companies that wish to use a more creative interpretation of GAAP to assess materiality are free to do so. If the SEC made the use of this aggregation guideline mandatory, one of the major loopholes in GAAP would be closed and corporations would have to report a more accurate total estimate of environmental liability.

PATCH #4: THE SARBANES-OXLEY ACT

In the wake of the high profile accounting scandals of Enron, WorldCom, and others, in 2002 Congress enacted the Sarbanes-Oxley Act.[23] The purpose of the legislation was to insure compliance with corporate financial reporting mandates and provide mechanisms to insure transparency and accuracy with these reporting mandates.

WHAT SARBANES-OXLEY REQUIRES

Notwithstanding the serious loopholes in GAAP and other accounting and disclosure guidelines discussed in this paper, the accurate reporting of financially material environmental liabilities was already mandated by SEC regulations before Sarbanes-Oxley was ever enacted. Essentially, what Sarbanes-Oxley did was to increase scrutiny of corporate financial disclosures and raise the stakes for non-compliance with GAAP and SEC disclosure regulations. Although the full implications of Sarbanes-Oxley are still being debated and aspects of it may ultimately be resolved in the courts, it's generally accepted that the Sarbanes-Oxley Act mandates that public companies should establish and maintain disclosure controls and procedures that continually generate and provide to the chief executive officer and chief financial officer all information required for accurate disclosure purposes. It also made the CEO and CFO personally responsible for the accuracy of the registrants' filings, and increased the independence and responsibility of the audit committee to ensure the integrity of corporate financial information collection and reporting systems.

In securing more accurate disclosure of environmental liabilities, two areas of Sarbanes-Oxley seem to hold the most promise – the sections dealing with audit committees and Section 302 Certification.[24]

AUDIT COMMITTEES

Although not many audit committees today tend to consider assessing the corporation's environmental condition as part of their purview, tomorrow's audit committees may. Two interlocking factors could drive this expansion of audit committees' scope – the personal liability of committee members and shareholder pressure. Officers and Directors insurance coverage does not indemnify directors who

23 Sarbanes-Oxley Act of 2002, Public Law No: 107-204 (July 30, 2002)

24 For a more detailed treatment of these two topics, please refer to a series of articles authored by Greg Rogers of Guida, Slavich & Flores, PC. "Uninsured and Undisclosed Environmental Liabilities Pose Risks for Directors," NACD-Monthly (May, 2003) & Financial Reporting of Environmental Liabilities (June, 2003)

do not practice adequate diligence. Given the wealth of information that is now available about the financial materiality of environmental conditions and the shortfalls of current accounting systems in accurately capturing and portraying this information to shareholders, corporate directors serving on audit committees may face considerable uninsured personal liability for future environmental disclosure shortcomings, especially if environmental reporting shenanigans become the focal point of shareholder lawsuits alleging harm from hidden liabilities or tardy disclosures. On a related note, some insurers are starting to withhold, or threaten to withhold, various types of insurance coverages pending an assessment of the company's preparedness and planning related to macro-economic environmental conditions such as global warming. This is an area that will bear further study, and likely to become the topic of much discussion amongst shareholders, management and various other stakeholders.

SECTION 302 CERTIFICATION

Section 302 of the Sarbanes-Oxley Act requires that a company's financial statements "fairly present" a securities issuer's financial condition. Although GAAP is often regarded as the gold standard in fair presentation of financial information, according to the final rule promulgated by SEC to implement Section 302 of the Act, companies may have to go beyond GAAP to meet the "fair presentation" test regarding:

> …the inclusion of any additional disclosure necessary to provide investors with a materially accurate and complete picture of an issuer's financial condition, results of operations and cash flows.[25]

Clearly, SEC is requiring registrants to use GAAP as a floor on which to build complete and accurate disclosure, not a ceiling to limit information that a prudent investor would need. However, since the basic question of how to determine the financial materiality of environmental conditions is left undefined, how far a company needs to go beyond GAAP is likely to be the subject of considerable debate.

THE SHORTFALLS OF SARBANES-OXLEY

Despite the tantalizing, albeit somewhat vague, promise of the Section 302 Final Rule, the Sarbanes-Oxley Act does not specifically address the very real and rife problem of corporate under reporting of environmental liabilities outlined in this paper. Much of the thrust of Sarbanes-Oxley was to increase corporate transparency through better adherence with GAAP. But better adherence to GAAP won't solve the under reporting of environmental liabilities because the problem is with GAAP itself, or at least with generally accepted interpretations of GAAP. As described in this paper, GAAP currently allows for two very specific problem practices. These are:

- Allowing corporations to report only the lowest estimate in a range of possible estimates for environmental liability regardless of probability.
- Allowing corporations to disaggregate environmental liabilities on a site by site basis, and therefore claim that each liability is financially immaterial - when clearly if all affected sites were aggregated the sum would be material.

25 67 Fed. Reg. 276, 57-279 (Sept. 9, 2002)

Therefore, even after the full implementation of regulations promulgated under Sarbanes-Oxley, the regulatory confusion and fundamental problems related to environmental liability still exist. What is a material environmental liability? How should environmental materiality be calculated? When should estimates of potential future financial liability driven by environmental factors be disclosed?

CLOSING THE GAP IN GAAP
SUMMARY AND RECOMMENDATIONS

Current law requires corporations to disclose financially material environmental liabilities to investors and other financial statement users in their annual filings. However, information developed through both public and private sector research including the U.S. Environmental Protection Agency, Price Waterhouse LLP and the Congressional General Accounting Office shows conclusively that expensive environmental liabilities are often misstated or under reported in corporate filings and communications with shareholders.

Despite current law, this under reporting occurs for two reasons:

- GAAP currently allows for two very specific problem practices:
  - Allowing corporations to report the lowest estimate in a range of possible estimates for environmental liability.
  - Allowing corporations to disaggregate environmental liabilities on a site-by-site basis.
- SEC enforcement, with the notable exception of the Lee Pharmaceuticals case, has been largely missing.[26]

SPECIFIC RECOMMENDATIONS TO CLOSE THE GAP IN GAAP

REGULATORY ACTIONS NEEDED

The common thread that runs through all of the public and private sector studies documenting serious environmental under reporting is confusion about how to estimate environmental liabilities and how to make materiality determinations. This confusion allows creative accounting license that hinders adequate shareholder disclosure of financially material environmental conditions, and makes it difficult for investors to make "apples to apples" comparisons between companies. Without clarifying its environmental estimation and disclosure regulations, the SEC will be hard pressed to ensure fair financial reporting by registrants, and will face significant hurdles in policing environmental accounting fraud.

RECOMMENDATION 1) REQUIRE USE OF THE EXPECTED VALUE METHODOLOGY

The SEC should require registrants to use the expected value methodology described in the ASTM Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters E 2137-0 when estimating and reporting environmental liabilities. By requiring corporations to disclose the expected value estimate of their environmental liabilities instead of the known minimum value, the SEC would ensure that financial statement users are getting the information they need to evaluate a company's financial health.

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26 In 1998, the SEC issued an enforcement order against Lee Pharmaceuticals and three of its executive officers based on seriously misleading environmental disclosures. For more information, see SEC Release No. 34-39843, (April 9, 1998).

RECOMMENDATION 2) REQUIRE AGGREGATION BEFORE DETERMINING MATERIALITY

The SEC should require registrants to follow the guidelines established in Standard Guide for Disclosure of Environmental Liabilities E 2173-0. By aggregating and disclosing environmental liabilities as described in the standard, SEC registrants will give financial statement users a much more comprehensive understanding of their environmental liabilities. The ASTM Standard Guide for Disclosure of Environmental Liabilities E 2173-0 addresses the very serious practice of piecemealing and under reporting environmental liabilities. The solution that the standard provides is simple and straightforward. If made mandatory, it would give shareholders and other financial statement users the information they need to achieve a more comprehensive understanding of a corporation's overall financial condition.

OVERSIGHT AND ENFORCEMENT NEEDED

In addition to clarifying how companies should estimate and disclose environmental liabilities, the SEC needs to increase its oversight and enforcement. Although we argue that the Commission's current regulations are vague and invite creative interpretation to the detriment of shareholders, we would not disagree with those who argue that the principles underlying our current framework of regulations and accounting bulletins should be enough to stop outright environmental accounting fraud. However, any regulation is only as effective as its enforcement. Without vigilant oversight and enforcement of disclosure requirements and constant review of corporate 10K's, under reporting of environmental liabilities will continue unabated.

While SEC has clearly favored the carrot in preference to the stick in encouraging registrants' respect for the disclosure of financially material environmental conditions, the recent pattern of corporate accounting fraud that spawned Sarbanes-Oxley, taken together with the ongoing investigations by New York Attorney General Elliott Spitzer that reveal fresh abuses of investor trust, graphically illustrate that the carrot is not always effective. SEC's promised scrutiny of the next round of filings by the Fortune 500 companies that were just warned about environmental disclosure deficiencies will provide the Commission with an opportunity to let recalcitrant registrants know that it is serious about enforcing existing environmental disclosure requirements and any new regulations or accounting guidance stemming from the adoption of the ASTM standards.

RECOMMENDATION 3) INCREASE MONITORING OF ENVIRONMENTAL DISCLOSURE

As the SEC's special review of annual reports filed by all Fortune 500 companies with the Commission in 2002 revealed, the Division of Corporation Finance found significant under reporting in the area of environmental and product liability.[27] As a result, the staff issued comments relating to environmental and product liability disclosure to a number of oil, gas and mining companies, as well as to several manufacturing companies. The focus of the comments was to advise registrants on

27 http://www.sec.gov/divisions/corpfin/fortune500rep.htm

deficiencies in filings and warn them that future filings would be scrutinized for improvement. Although investors might have been even better served by a more public review process that revealed greater information about which companies offered deficient financial statements, nonetheless this is an outstanding example of the SEC's oversight system working correctly. SEC should be commended for this effort, and encouraged to continue this new trend of more aggressive monitoring activities.

RECOMMENDATION 4) INITIATE ENFORCEMENT OF DISCLOSURE STANDARDS

Despite the laudable recent increase in oversight activities since the release of the 1998 EPA study, it's important to recognize that this study, which found bright-line violations of securities reporting regulations, sparked zero enforcement actions by SEC. This is troubling because the EPA study focused on one of the few areas where there is absolutely no ambiguity in the regulations. SEC Rule SK 103 requires corporations to disclose environmentally related legal proceedings that could result in governmental monetary sanctions over $100,000. However, EPA's Office of Enforcement and Compliance Assurance found that 74% of companies failed to report these instances in their 10Ks. Furthermore, the same study documented even worse compliance with other environmental disclosure practices, albeit including those practices where there is arguably more leeway in interpretation.

Clearly, at least some of the problems that EPA documented were not with understanding the letter of the law, but with compliance. We are not aware of a single enforcement action filed by SEC in response to the documented fact that three quarters of registrants penalized by the government for violating various environmental statutes ignored clear disclosure mandates. SEC must be willing to enforce its own regulations, including those aspects of its regulations that explicitly or implicitly require the disclosure of financially material environmental conditions. Otherwise, the Commission may be viewed by both registrants and investors alike as a paper tiger, rather than the aggressive guardian of many trillions of dollars of public trust.