American Bar Association

Section of Environment, Energy, and Resources

Hot Topics in Environmental Disclosure

Corporate Environmental Disclosure Policy

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17th Section Fall Meeting
Baltimore, MD
September 23-26, 2009

ABSTRACT: This paper examines the factors influencing corporate disclosure policy for environmental remediation liabilities, describes important advances in environmental risk transfer, accounting principles, and financial analysis, and discusses the policy implications of these developments. The paper concludes that in light of recent developments corporations should reevaluate their environmental disclosure policies to determine whether they—(1) are supported by adequate information and reporting systems; (2) are reasonably defensible under existing legal and accounting standards; and (3) have advantages that outweigh their disadvantages. Corporate boards should incorporate newly-developed financial analytics into existing information and reporting systems and implement procedures to systematically assess the impact of environmental liabilities and related disclosure policies on the entity's compliance with law and business performance.

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I. Introduction

This paper examines the factors influencing corporate environmental disclosure policy, describes important advances in environmental risk transfer, accounting principles, and financial analysis, and discusses the policy implications of these developments. The paper focuses on disclosure of loss reserves for environmental remediation liabilities (herein referred to simply as "environmental liabilities") arising under pollution remediation laws such as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund), the remedial components of the Resource Conservation and Recovery Act (RCRA), and corresponding state laws. It does not address other types of environmental loss contingencies, such as those related to greenhouse gas emissions, climate change, sustainability, asbestos, and toxic torts.

Environmental liabilities have special characteristics that pose unique disclosure challenges. They are artifacts of legacy operations rather than an unavoidable consequence of ongoing operations. They do not generate profit and are not a by-product of current income-producing activities. The underlying pollution conditions reside in subsurface soil, groundwater, and sediment and, absent purposeful investigation, they can remain unknown for long periods. Once discovered they often take decades to resolve. Typically, they are obligations to provide services rather than money. They tend to be settled gradually over time rather than in a single payment or act. They are subject to significant factual and legal uncertainty. They can have a severe adverse impact on an entity's financial condition, frequently resulting in bankruptcy. They are subject to special disclosure requirements under guidance from the Securities and Exchange Commission (SEC). Finally, their management is considered by many to be an indicator of an entity's corporate governance and social responsibility.

The paper concludes that recent advances in environmental risk transfer, accounting principles, and financial analysis warrant a reevaluation of prevailing environmental disclosure policies to determine whether they—(1) are supported by adequate information and reporting systems; (2) are reasonably defensible under existing legal and accounting standards; and (3) have advantages that outweigh their disadvantages.

II. Inherent Uncertainty

Like other contingent liabilities, the ultimate loss to an entity from environmental liabilities arising from both known and unknown pre-existing pollution conditions is contingent on the outcome of future events. These future outcomes are subject to significant uncertainty from many sources. Areas of uncertainty include:

- Uncertainty about the future discovery of pre-existing unknown pollution conditions.
- Uncertainty about the future assertion of claims by government agencies or private litigants.

- Uncertainty about future changes in laws, administrative policies, or judicial rulings that could create new environmental liabilities or exacerbate existing ones.
- Uncertainty about the total cost of cleanup due to incomplete site characterization data, uncertainty whether a given remedial approach will be approved by the supervising regulatory agency, and the risk of cost overruns.
- Uncertainty about the entity's share of the total cost of site cleanup at a multi-party site.
- Uncertainty about the timing of cash flows to settle existing obligations.
- Uncertainty about an entity's ability to recover funds from other responsible parties, insurers, or guarantors to offset its share of the loss.

These uncertainties give rise to multiple possible outcomes, each having its own probability of occurrence and estimated loss.

III. Flexible Reporting

To accommodate the inherent uncertainty surrounding environmental liabilities and other legal contingencies, financial reporting standards provide significant flexibility with regard to financial statement recognition, valuation, and disclosure. In the U.S., environmental liabilities historically have been accounted for as loss contingencies under Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standards No. 5 (FAS 5), originally issued in 1975, and FASB Interpretation No. 14 (an interpretation of FAS 5) (FIN 14). Other relevant accounting pronouncements include American Institute of Certified Public Accountants (AICPA) Statement of Position No. 96-1 (SOP 96-1), which applied the principles of FAS 5 and FIN 14 to environmental liabilities, and SEC Staff Accounting Bulletin No. 92 (SAB 92), which expressed certain views of the SEC staff on accounting and disclosures relating to loss contingencies.[1] Subsequent accounting standards, including FAS 143 (Asset Retirement Obligations), FIN 45 (Guarantees and Indemnifications) and FAS 141R (Business Combinations), have cut back on the application of FAS 5 to environmental liabilities. However, the vast majority of environmental liabilities continue to be governed by FAS 5 under U.S. generally accepted accounting principles (US GAAP). Comparable, but not identical, accounting standards apply to environmental liabilities under International Financial Reporting Standards (IFRS).

As discussed in more detail below, key areas of flexibility under the existing financial reporting framework include the criteria for liability recognition, the measurement technique used to estimate loss reserves, and the specificity of quantitative and qualitative disclosure.

[1] 58 Fed. Reg. 32843 (June 14, 1993).

A. FAS 5

FAS 5 defines a *contingency* as an existing condition, situation, or set of circumstances involving uncertainty as to possible gain (gain contingency) or loss (loss contingency) to an entity that will ultimately be resolved when one or more future events occur or fail to occur.[2] In the case of a gain contingency, resolution of the uncertainty may confirm the acquisition of an asset or the reduction of a liability. In the case of a loss contingency, resolution of the uncertainty may confirm the loss or impairment of an asset or the incurrence of a liability.

FAS 5 requires accrual of a liability for the estimated loss from a loss contingency if both of the following conditions are met: (1) information available prior to issuance of the financial statements indicates that it is probable that an asset had been impaired or a liability had been incurred at the date of the financial statements; and (2) the amount of loss can be reasonably estimated.[3] With respect to unasserted claims, the entity must determine the likelihood that a claim will be asserted, and the likelihood of an unfavorable outcome. If the entity determines that assertion of a claim is not probable, no accrual or disclosure is required. If the entity determines that assertion is probable, then a second judgment must be made as to the likelihood of an unfavorable outcome. If an unfavorable outcome is probable and the amount of loss can be reasonably estimated, accrual of a loss is required.[4]

For purposes of the FAS 5 probability criterion, *probable* means the future event or events are likely to occur.[5] In practice, however, liabilities are not recognized under the FAS 5 probability criterion "unless there is a high likelihood of a future outflow of resources."[6]

A loss is "reasonably estimable" if available information indicates that the estimated amount of loss is within a range of amounts.[7] In other words, a loss is reasonably estimable if both a high end and a low end of the possible range of outcomes can be determined.

Once an entity has determined that it is probable that a liability has been incurred and the loss can be reasonably estimated, the entity should develop a best estimate of the liability based on available information. When some amount within the range of possible outcomes appears at the time to be a better estimate than any other amount within the range, that best estimate amount

[2] SFAS 5 ¶ 1.

[3] SFAS 5 ¶ 8.

[4] SFAS 5 ¶ 38.

[5] SFAS 5 ¶ 3.

[6] SFAS 141R ¶ B226.

[7] FASB Interpretation No. 14 (FIN 14) ¶ 2.

should be accrued. When no amount within the range is a better estimate than any other amount, however, the minimum amount in the range (*known* minimum) should be accrued.[8]

Estimates generally are measured in current dollars (as if all of the work is to be performed today). Cost estimates may be discounted to reflect the time value of money only when the amount and timing of future payments are fixed and determinable. Discounting is not allowed when the entity cannot reasonably estimate the future impact of inflation and other cost factors because of uncertainty about the timing of expenditures.[9]

B. SOP 96-1

SOP 96-1 assumes that environmental liabilities are by definition obligations subject to pending or threatened enforcement or litigation. It expressly excludes from financial statement recognition remediation costs incurred in connection with environmental remediation actions that are undertaken at the sole discretion of management and that are not induced by the threat, by governments or other parties, of litigation or of assertion of a claim or an assessment—for example, remediation under a state voluntary cleanup program.

SOP 96-1 gives special attention to the uncertainty inherent in environmental liabilities and the challenges this poses for estimating loss reserves. SOP 96-1 states that early in the remediation process, particular components of the overall liability may not be reasonably estimable at all. Many environmental professionals today contend that nearly all environmental liabilities can be reasonably estimated from the outset. Nonetheless, according to SOP 96-1, the fact that the overall liability cannot be reasonably estimated should not preclude the recognition of a liability. Instead, the components of the liability that can be reasonably estimated should be viewed as a surrogate for the known minimum value in the range of the overall liability under FIN 14.[10]

For example, a sole PRP that has confirmed that it sent waste to a Superfund site and agrees to perform a remedial investigation and feasibility study (RI/FS) may know that it will incur costs related to the RI/FS. The PRP, although aware that total costs associated with the site will be greater than the cost of the RI/FS, may be unable to reasonably estimate the overall liability. The inability to quantify the total costs of the overall liability should not preclude recognition of the estimated cost of the RI/FS. In this situation, SOP 96-1 provides that a liability for the best estimate (or, if no such estimate is available, the known minimum value) of the cost of the RI/FS, and for any other remediation components that can be reasonably estimated, should be recognized as a liability.

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[8] FIN 14 ¶ 3.

[9] SOP 96-1 ¶ 6.13.

[10] SOP 96-1 ¶ 5.11.

SOP 96-1 encourages *but does not require* disclosure of the amount of expenditures for environmental cleanup costs charged to income and the amount recognized for environmental remediation loss contingencies in each period. This information is critical to enable the financial analysis described later in this paper.

C. SAB 92

The SEC issued SAB 92 in 1993 in response to concerns about diversity in practice with respect to accounting and disclosures for loss contingencies. With respect to product and environmental liabilities, the SEC stated:

> The staff believes that product and environmental liabilities typically are of such significance that detailed disclosures regarding the judgments and assumptions underlying the recognition and measurement of the liabilities are necessary to prevent the financial statements from being misleading and to inform readers fully regarding the range of reasonably possible outcomes that could have a material effect on the registrant's financial condition, results of operations, or liquidity. …
>
> Disclosures made pursuant to the guidance … should be sufficiently specific to enable a reader to understand the scope of the contingencies affecting the registrant. For example, *a registrant's discussion of historical and anticipated environmental expenditures should, to the extent material, describe separately* (a) recurring costs associated with managing hazardous substances and pollution in on-going operations, (b) capital expenditures to limit or monitor hazardous substances or pollutants, (c) *mandated expenditures to remediate previously contaminated sites*, and (d) other infrequent or non-recurring clean-up expenditures that can be anticipated but which are not required in the present circumstances. Disaggregated disclosure that describes accrued and reasonably likely losses with respect to particular environmental sites that are individually material may be necessary for a full understanding of these contingencies. Also, if management's investigation of potential liability and remediation cost is at different stages with respect to individual sites, the consequences of this with respect to amounts accrued and disclosed should be discussed.[11]

Significantly, SAB 92 instructs entities to separately disclose annual environmental remediation expenditures. This information is critical to enable the financial analysis described later in this paper.

[11] 58 Fed. Reg. 32843, 32845 (June 14, 1993) (emphasis added).

D. ASTM E 2137

ASTM E 2137, "Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters," issued by ASTM International in 2001 and updated in 2006, is a voluntary standard for estimating environmental liabilities, including environmental loss reserves. Although the standard is not authoritative, it is considered by the FASB and the SEC to be consistent with and permissible under US GAAP.

The central component of ASTM E2137 is a decision framework that guides an entity in choosing among various estimating methods. These methods are:

- *Quoted Price*. The quoted price uses market place information to determine a fair value market price for an identical or similar liability. Quoted prices often are based on expected value estimates.
- *Expected value*. *Expected value* is defined as an estimate of the weighted mean value of an unknown quantity that represents a probability-weighted average over the range of all possible values.
- *Most likely value*. The *most likely value* is the estimated cost of the scenario believed to be most likely to occur (e.g., a stated preferred remedy). This approach may be used when cost or other considerations preclude development of a full range of possible outcomes to support an expected value estimate. This measurement technique is not useful if no scenario, grouping, or cluster of outcomes has a probability of occurrence that is significantly greater than others.
- *Range of values*. The range-of-values approach provides a low cost estimate and a high cost estimate, comparable to a reasonable best-case and reasonable worst-case scenario. The range-of-values technique can be used in place of the expected value or most likely value approaches when probabilities or rankings for various outcomes cannot be determined based on existing information and circumstances. The preferred approach is to disclose a range of values with the most likely value.
- *Known minimum value.* The known minimum value represents an estimate of costs that are reasonably certain to be incurred. Use of this technique is appropriate in those rare situations when uncertainties are so great that it is not practicable to estimate a range of values.

The methods described above are listed in the order of their robustness and comprehensiveness and degree of effort required. A quoted price followed by an expected value estimate provides the highest degree of robustness and comprehensiveness, whereas a known minimum value estimate provides the least. Likewise, the level of effort required to prepare an expected value estimate is generally greater than the level of effort needed to prepare an estimate of the most likely value, and so forth.

IV. Management Discretion

The existing financial reporting framework provides significant latitude for management discretion in three key areas—(1) investigation of existing circumstances, (2) speculation about future outcomes, and (3) transparency of disclosure. Each of these areas is discussed below.

A. Investigation of Existing Circumstances

Investigation is often necessary to identify and assess pre-existing pollution conditions that could result in future cash outflows. Such investigation is sometimes called environmental due diligence or "all appropriate inquiries." Investigation is particularly relevant to estimating losses for environmental contingencies because the underlying physical conditions often are latent and because it often is within management's control whether to conduct or allow investigation, especially with regard to owned properties. Management often has discretion to attempt to identify and fully assess all pre-existing pollution conditions or to investigate only those matters subject to pending enforcement or litigation.

B. Speculation about Future Outcomes

Following an evaluation of existing circumstances, speculation about future outcomes is necessary to determine whether to recognize a liability and to estimate the entity's loss. In determining whether to initially recognize a liability, speculation is required to determine whether liability is probable and, if so, whether the amount of the loss is reasonably estimable. These criteria are highly subjective, especially when applied to pollution conditions that are not subject to pending claims. One of financial statement users' most significant concerns about disclosures under FAS 5 is that entities often state that the possible loss cannot be reasonably estimated.[12]

Assuming the entity elects to recognize a liability, considerable latitude exists with regard to measurement of the liability. Multiple outcomes often exist for a given environmental contingency as it develops toward resolution. Regulatory actions, site characterization, remedial action effectiveness, legal matters, and insurance coverage are variables that often are not predictable with certainty. These uncertainties give rise to multiple possible outcomes, each having its own probability of occurrence and estimated loss.

Under applicable US GAAP and relevant voluntary standards, management has broad discretion to measure the loss at its known minimum value, most likely value, expected value, or quoted price (fair value). No speculation about future outcomes is required to determine a known minimum value. In contrast, speculation about future outcomes generally is required to develop an expected value or fair value.

C. Transparency of Disclosure

Disclosure standards for environmental liabilities include subjective language such as "to the extent material," "when necessary for the financial statements not to be misleading," and

[12] Proposed Statement of Financial Accounting Standards, *Disclosure of Certain Loss Contingencies: an amendment of FASB Statements No. 5 and 141(R).* http://www.fasb.org/draft/ed_contingencies.pdf.

"encouraged but not required." Consequently, they provide broad latitude for the exercise of management discretion.

A recent FASB proposal to expand disclosures for loss contingencies[13] (hereinafter referred to as "FAS 16x Exposure Draft)" would require companies to disclose significantly more information about contingencies than currently required or encouraged under existing standards, including:

- Information about remote contingencies that could have a near-term severe impact on the entity's financial condition.
- Quantitative information about the entity's exposure to loss, including the amount of any claim or assessment or the entity's best estimate of the maximum exposure to loss.
- Qualitative information, including, at a minimum, a description of the contingency, including how it arose, its legal or contractual basis, its current status, and the anticipated timing of its resolution.
- A description of the factors likely to affect the ultimate outcome of the contingency along with their potential effect on the outcome.
- The entity's qualitative assessment of the most likely outcome of the contingency.
- Significant assumptions used in estimating amounts and predicting outcomes.
- Reconciliation, in tabular format, of recognized loss contingencies at the beginning and end of the accounting period, including, at a minimum:
  - Increases for loss contingencies recognized during the period
  - Increases resulting from changes in estimates of the amounts of loss contingencies previously recognized
  - Decreases resulting from changes in estimates or derecognition of loss contingencies previously recognized
  - Decreases resulting from cash payments (or other forms of settlement) for loss contingencies.
  - Recoveries from insurance or indemnification arrangements.
- A qualitative and quantitative description of insurance or indemnification arrangements that could lead to a recovery of some or all of the possible loss, including any caps, limitations, or deductibles that could affect the amount of recovery.

The foregoing are examples of types of disclosures that are not presently required but that are within management's discretion to provide and which would enhance the ability of financial statement users to assess the effect of environmental liabilities on an entity's results of operations and financial condition.

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[13] *Id.*

V. Spectrum of Discretion

In setting policy for disclosure of environmental liabilities, management must choose among various options in the three primary choice domains of investigation, speculation, and transparency described above. At one end of the spectrum, which I call "don't ask don't tell," management makes choices designed to minimize the collection and disclosure of potentially prejudicial information. *Prejudicial information* is information whose collection or dissemination could adversely affect the outcome of the contingency itself thereby increasing the entity's loss (the *prejudicial effect*).[14] At the other end of the spectrum, which I call "crystal ball," management makes choices designed to maximize the informational value of reported loss reserves and related disclosures. Table 1 below shows the range of options.

Table 1. Spectrum of Discretion

Choice Domain	Minimize Prejudicial Effect	Maximize Informational Value
Investigation	Only as compelled by law	Thorough due diligence of all currently and formerly owned/operated facilities and non-owned disposal sites
Speculation	Known minimum value estimates	ASTM E 2137 expected value estimates or quoted prices
Transparency	Defensible minimum	FAS 16x Exposure Draft

In theory, environmental loss reserves for an entity employing a crystal ball disclosure policy would have the following characteristics:

- Initial loss reserves will be 100% accurate across a portfolio of liabilities. Over-estimates will offset under-estimates.
- The entity will recognize no additional net accruals (other than accretion) for previously recognized losses. Positive accruals needed to reflect increases in loss estimates will be offset by negative accruals to reflect decreases in loss estimates.
- The entity will recognize no new liabilities (net of applicable rights of recovery) other than those assumed in business combinations. Through thorough investigation the entity will have identified and reported all reasonably discoverable pollution conditions for which it might have liability. The entity will not generate new pollution conditions as a result of improper operations and it will account for any new pollution conditions generated through normal operations as asset retirement obligations under FAS 143.

[14] See Exposure Draft 16x ¶11. My definition includes collection and dissemination of information through means other than financial disclosure (e.g., sharing with financial auditors).

Finally, the entity will have purchased insurance to protect against losses from pre-existing unknown pollution conditions and sudden and accidental releases.

- Accruals will be serially uncorrelated. Accruals needed to adjust prior estimates based on new facts and circumstances will be uncorrelated with reserve adjustments in prior and future years.

- Accruals will be uncorrelated with expenditures. New accruals will not be needed to replenish reserves for remediation expenditures. Accruals for new liabilities assumed in business combinations will reflect all future costs to settle the liability and will thus be significantly larger than the related expenditures incurred during the current period.

- Loss reserves will decrease in direct proportion to remediation expenditures. Reserves will equal the sum of future expenditures and will drop $1 for every $1 spent on remediation (with the exception of accretion charges to reverse the effect of discounting on the initial reserve).

By contrast, environmental loss reserves for an entity employing a don't ask don't tell disclosure policy can be expected to have the following characteristics:

- Initial loss reserves will underestimate the entity's ultimate loss for a portfolio of liabilities.

- The entity will continually recognize new accruals for previously recognized liabilities.

- The entity will recognize new liabilities as new governmental or third-party claims arise with respect to pre-existing unknown and known (but not reported) pollution conditions for which it has liability. Such claims will not be covered by claims-made environmental insurance because the entity will not have performed the investigation necessary to obtain coverage.

- Accruals will be serially correlated and correlated with expenditures. New accruals will be needed to replenish reserves for remediation expenditures. Cash expenditures will tend to be relatively constant from year to year. Thus, accruals will tend to be relatively constant from year to year.

- Loss reserves will not decrease in direct proportion to remediation expenditures. Reserves will equal only a fraction of the sum of future expenditures and will decline disproportionally with cash expenditures.

VI. Prejudicial Effect

In response to a recent proposal by the FASB to expand disclosure requirements for loss contingencies, the American Bar Association (ABA) raised the following concerns about the potential for expanded disclosure requirements to give rise to prejudicial effects:

> The United States employs an adversarial system of justice and has a uniquely active litigation and regulatory environment and plaintiffs' bar that make prediction about the outcome of a pending or threatened claim, particularly early in the proceeding, very difficult. In this environment, claims are often filed making demands that far exceed the amount of real harm suffered by plaintiffs and the amounts, if any, that will ultimately be paid in settlement or judgment. Litigation in the United States is more prolific than in most of the rest of the developed world, with many more large, complex cases, class actions, derivative suits, and claims for punitive and treble damages. Also, in the United States, many complaints do not state a specific amount of recovery the plaintiff is seeking, beyond any jurisdictional threshold for the specific court. Indeed, in some jurisdictions, it is impermissible to state an amount of damages in the complaint. In many significant cases, the plaintiff may not indicate with any precision what relief it is seeking until the proceedings are well underway, for example, in response to defendant's damages interrogatories. These attributes of the United States litigation environment should be compared to the judicial systems in other countries—in Europe and in Asia—with well-developed sophisticated economies. For example, it is noteworthy that in Europe and Asia, unlike the United States, commercial cases are rarely decided by juries. Given the inherent unpredictability of juries, the risk of attempting to estimate litigation outcomes in jury cases is greater than in cases tried to a court or administrative tribunal. Moreover, the United States has far more liberal discovery rules than any other country that will permit plaintiffs to inquire into the facts underlying the disclosures and, likely, lead to claims in many cases that applicable privileges have been waived by the reporting entity. To the extent that the proposed new standard leads to findings that companies have waived applicable privileges by disclosing confidential communications with counsel in their quantitative and qualitative assessments of litigation, the proposed new disclosure standards threaten to subject companies and their counsel to broad-ranging discovery by adversaries regarding the disclosures.
>
> Sometimes cases are brought for reasons having nothing to do with economic harm and are subsequently dropped or dismissed. Sometimes verdicts and judgments are much larger than could reasonably have been expected at the outset of a case. Commonly, the real exposure posed by a lawsuit can only be

> determined as the action progresses through discovery and decisions are made about matters such as venue, forum, choice of law, class certification, the survival of claims, admissibility of evidence, and a host of similar matters, often a lengthy and very unpredictable process. Likewise, examinations and investigations by civil regulators and law enforcement authorities often begin with a long period of factual investigation followed by lengthy and sometimes contentious negotiations with each side taking strong opposing positions that work themselves out over time. The entire process is surrounded by protections, some among the most ancient in origin, such as the attorney-client privilege and work product doctrine that allow parties to communicate candidly with their expert advisors, those most able to assess the real exposure of a claim, without the contents of those communications being discoverable publicly. Where both sides seek every advantage in the proceeding, evenhanded implementation of our adversary system depends on parties being able to maintain their own counsel as to their intentions, assessments and strategies rather than provide them to their adversaries.[15]

The foregoing concerns expressed by the ABA about disclosure of legal contingencies are generally applicable to adversarial environmental proceedings. Environmental liabilities, however, present additional concerns about prejudicial information.

First, collection of information about environmental contingencies can trigger reporting and corrective action requirements under environmental laws. Once in possession of information confirming a release of hazardous substances to the environment, entities often will be obligated under federal or state environmental laws to notify environmental regulatory agencies. In some cases, entities also may be obligated to notify affected persons, such as employees, tenants, and neighbors. By performing voluntary environmental due diligence, entities can significantly increase "enforcement risk"—the likelihood of government enforcement or private litigation relating to latent pollution conditions.

Second, environmental liabilities have very long tails. Unless and until entirely removed from the environment or completely decontaminated—which happens rarely if ever—pollution conditions can cause additional harm and give rise to additional legal claims. Even after a site is deemed "closed," regulators may determine that new facts and circumstances—such as scientific developments or failure of Institutional or physical controls—warrant "reopener" for additional investigation and remediation. Unlike many other types of litigation contingencies, environmental contingencies seemingly never end and may pose risks to an entity for many decades following the initial release or its discovery. Discretionary collection of information

[15] Comments of American Bar Association regarding Disclosure of Certain Loss Contingencies: An Amendment of F ASB Statements 5 and 141 (R); File Reference 1600-100, August 5, 2008.

about existing circumstances and speculation about future outcomes has the potential to exacerbate an entity's environmental liability long into the future.

Concern about prejudicial information will be greatest where conditions present a risk of severe financial impact and adversarial legal proceedings. Superfund sites tend to have the most severe financial impact, involve the greatest degree of uncertainty, often involve multi-party litigation, are most likely to give rise to ancillary claims for bodily injury, property damage, and natural resource damages, take a very long time to resolve, and are highly adversarial. Other circumstances, such as large real estate holdings with known or suspected historical pollution conditions, can also give rise to heightened sensitivity about prejudicial information and enforcement risk.

VII. Management's Catch-22

Management has three basic policy options for disclosure of environmental liabilities. Two of these basic policy options—don't ask don't tell and crystal ball—have been described above. I call the third option "double-booking". Under this hybrid option, management employs a crystal ball policy for internal decision-making, while maintaining a don't ask don't tell policy for public disclosure. Each option has significant potential downsides, thus presenting management with a Catch-22.

The don't ask don't tell policy is effective at limiting the collection and dissemination of prejudicial information. The downside of the don't ask don't tell policy is that it limits the information available to inform sound decision-making by management, the board, and investors. Its informational value is low.

The crystal ball policy provides high informational value to inform decision-making by management, the board, and investors. The downside of the crystal ball policy is that it produces and disseminates prejudicial information. Such information could lead to unknown, but potentially severe losses. Another downside of the crystal ball policy is that debt and equity markets may mistakenly punish the entity for appearing to have greater exposure to environmental losses than its nontransparent peers.

The double-booking option offers the dual advantages of minimizing exposure to prejudicial information while simultaneously providing information needed to inform sound decision-making by management and the board. The downside of the double-booking policy is that it conceals important information from financial statement users and thereby exposes the entity to accusations of accounting and securities fraud.

Based on this analysis of the advantages and disadvantages of the three basic policy options, selection of the don't ask don't tell policy seems reasonably defensible, if not obligatory. Corporate directors and officers have a fiduciary duty to exercise judgment in an informed, good

faith effort to maximize the corporation's long-term wealth-creating capacity and avoid waste of the corporation's assets. Faced with the choice of maintaining the status quo in a legally defensible manner or "kicking the sleeping dog" and risking potentially severe adverse outcomes, corporate leaders arguably have been well-advised to keep their heads down and their mouths shut.

VIII. Recent Developments

Recent advances in environmental risk transfer, accounting principles, and financial analysis have significantly altered the mix of information relevant to an informed evaluation of alternative environmental disclosure policy options. These advances and their implications for environmental disclosure are discussed below.

A. Advances in Environmental Risk Transfer

Due to advances in environmental risk transfer, the uncertainty associated with environmental losses can now be capped or significantly curtailed. Today, there is a large and sophisticated market for transfer of environmental risks and liabilities arising from pre-existing known and unknown pollution conditions. Insurance carriers and large environmental remediation firms, either individually or collectively, are prepared to assume financial responsibility for all but the largest and most uncertain environmental risks. This means that the volatility in environmental loss reserves and the associated risk to the financial condition of the entity can be largely or completely eliminated for a price—often without need for collection and dissemination of prejudicial information.

B. Movement towards Market-Based Accounting

Accounting standards are catching up with the risk transfer markets. FAS 157 (Fair Value Measurement), which applies to most financial assets and liabilities and certain types of environmental liabilities, defines the fair value of a liability as the price that would be paid to transfer the liability in an orderly transaction between market participants at the measurement date.[16] FASB calls this an "exit price". A quoted price for the identical liability in an active market is the best evidence of fair value.[17] If an active market does not exist, entities must estimate the exit price based on the assumptions that market participants would use in pricing the liability, including probabilistic analysis, risk premium, and profit margin.[18]

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[16] SFAS 157 ¶ 5.

[17] SFAS 157 ¶¶ 22 and 24.

[18] SFAS 157 ¶ B2. See also proposed FASB Staff Position (FSP) FAS 157-c regarding clarification of SFAS 157 on the measurement of liabilities. http://www.fasb.org/fasb_staff_positions/prop_fsp_fas157-c.pdf.

Some environmental liabilities are currently subject to fair value measurement, rather than the measurement guidance in FIN 14 and SOP 96-1. For example, environmental liabilities associated with the retirement of tangible long-lived assets (e.g., property, plant, and equipment) that result from the acquisition, construction, or development and (or) the normal operation of such assets are currently subject to fair value measurement under FAS 143 (Asset Retirement Obligations).[19] As originally issued, FAS 141R (Business Combinations) required fair value measurement for many types of contingent liabilities assumed in a business combinations. Under pressure from corporations, lawyers, and auditors related to concerns about prejudicial information, the FASB later amended Statement 141R to revert to the preexisting FAS 5 guidance.[20] The International Accounting Standard Board (IASB) appears to be less concerned than the FASB about the potential for prejudicial effect, as evidenced by the fact that the IASB has not modified IFRS 3 (the companion standard to FAS 141R) in step with the FASB. Environmental liabilities assumed in business combinations must be measured at their acquisition-date fair value under IFRS 3.

A discounted expected value (e.g., as developed in accordance with ASTM E 2137) will usually be the only appropriate technique with which to estimate the fair value or exit price of an environmental liability.[21] The application of market valuation principles to certain environmental liabilities under International Financial Reporting Standards and US GAAP has created expectations among financial statement users that the crystal ball policy is presently achievable and allowable under current accounting standards. Sophisticated financial statement users can reasonably assume that evidence of a don't ask don't tell disclosure policy is evidence of fear of prejudicial information or other downside risks.

C. Advances in Financial Analysis

New financial analysis techniques now make it possible to discern and measure the influence of management discretion on environmental loss reserves, improve upon reported loss reserve estimates using publicly-available information, and assess the materiality of off-balance sheet environmental liabilities. These analytical techniques use accrual and expenditure data to develop a variety of financial ratios. These ratios identify an entity's position on the spectrum of discretion by measuring:

- The rate at which the entity incurs accruals for legacy environmental liabilities;

[19] SFAS 143 ¶ 2.

[20] FSP FAS 141(R)-1 (April 1, 2009).

[21] See FAS 143 ¶ A20, as amended by SFAS 157 ¶E23(b) (stating that expected present value technique will usually be the only appropriate technique with which to estimate the fair value of an asset retirement obligation).

- The degree to which annual accruals are serially correlated;
- The degree to which accruals are correlated with remediation expenditures;
- The degree to which accrual rates are correlated with the number of years of future expenditures covered by loss reserves;
- The entity's effectiveness in reducing loss reserves through remediation expenditures;
- The accuracy of reported loss reserves relative to the present value of reasonably anticipated future cash flows;
- The effect of off-balance sheet liabilities on the entity's debt ratios; and
- The effect of recurring accruals on the entity's stock price and market capitalization.

These techniques significantly alter the mix of information available to corporate directors, investors, auditors, and regulators. They enable an objective, readily-accessible comparison of performance among peer companies, across an industry sector, or across national and international economies and reporting regimes. They also provide directors and senior management with readily available information on the materiality of unrecognized, off-balance sheet liabilities.

IX. Policy Implications

Adoption of the don't ask don't tell policy is based on two principle assumptions—(1) the policy is reasonably defensible under existing legal and accounting standards, and (2) the policy's advantages outweigh its disadvantages. Collectively, advances in environmental risk transfer, accounting principles, and financial analysis raise significant new challenges to the validity of these assumptions.

As reported by the National Association of Corporate Director's Blue Ribbon Commission on Risk Oversight, the benchmark for directors' risk oversight obligations was established in *In re Caremark International, Inc*., a 1996 Delaware decision. The derivative suit before the court involved claims that members of Caremark's board of directors breached their fiduciary duty of care to Caremark in connection with alleged violations by Caremark employees of federal and state laws and regulations.

The court noted that director liability for a breach of the duty to exercise appropriate attention may arise in two distinct contexts. First, such liability may follow from a board decision that results in a loss because that decision was ill-advised or negligent. In such cases, liability is typically subject to the director-protective business judgment rule, assuming the decision made

was the product of a process that was either deliberately considered in good faith or was otherwise rational.

Second, liability to the corporation for a loss may arise from an unconsidered failure of the board to act in circumstances in which due attention would, arguably, have prevented the loss. In such cases, directors must satisfy their duty of care to be reasonably informed by:

> assuring themselves that information and reporting systems exist in the organization that are reasonably designed to provide to senior management and to the board itself timely, accurate information sufficient to allow management and the board, each within its scope, to reach informed judgments concerning both the corporation's compliance with law and its business performance.

Caremark indicates that directors of corporations have a fiduciary duty to examine the sufficiency of the entity's existing information and reporting systems relating to environmental liabilities and loss reserves. If such systems are found to be deficient, directors must take appropriate alternative steps to become informed. Once informed, directors must evaluate the entity's environmental disclosure policy in terms of compliance with law and impact on business performance.

A. Information and Reporting Systems

There are no clearly established criteria for assessing the adequacy of information and reporting systems relating to environmental liabilities and loss reserves. Boards must exercise judgment based on available information and current standards of sound corporate governance. The available mix of information available to directors has changed as a result of the introduction of financial analysis techniques that discern and measure the influence of management discretion on environmental loss reserves. Corporate governance standards will need to adapt accordingly.

Consider the case of Tronox Inc., an Oklahoma City chemical company spun off from Kerr-McGee in 2005. Tronox filed for Chapter 11 bankruptcy protection in January 2009. The company's Form 8-K filed May 4, 2009 stated:

> [T]he Company's [financial statements filed with the SEC] should no longer be relied upon because the Company failed to establish adequate reserves as required by applicable accounting pronouncements. … The amount of any increase to its reserves that may need to be taken is not known at this time. However, the adjustments will be material.

In the company's complaint filed in May 2009 against the former Kerr-McGee and Anadarko, which acquired the oil and gas assets of Kerr-McGee, Tronox alleged that Kerr-McGee provided misleading information regarding Tronox to potential investors in connection with the spin-off. In support of this claim, the complaint alleged:

> New Kerr-McGee also materially understated the Legacy Liabilities that it dumped on Tronox through the Spin-off. In particular, New Kerr-McGee's methodology for setting its environmental and tort reserves was deeply flawed, and inconsistent with generally accepted accounting principles and industry practice. New Kerr-McGee ignored known information in setting reserves and applied a threshold for taking a reserve that was materially higher than what was appropriate under GAAP. As a result, the environmental and tort reserves set forth in the Form S-1 Registration Statement ("Registration Statement") and elsewhere were materially understated.

A financial analysis of Tronox's environmental loss reserves shows that the company had material unrecognized environmental liabilities at the time of the spin-off from Kerr-McGee and at every point up to its bankruptcy filing in January 2009. Yet, Tronox's directors authorized a public offering of securities and its CEO and CFO certified the fairness of the corporation's financial statements and the adequacy of its internal control over financial reporting. These circumstances indicate that Tronox's directors and senior management lacked the information and reporting systems needed to make informed judgments concerning the corporation's compliance with accounting standards and securities laws.

Tronox is an extreme example. But my research shows that many other publicly-traded U.S. corporations have unrecognized environmental liabilities that are material to the financial condition of the entity as a whole. Boards that have tacitly or expressly adopted the don't ask don't tell policy cannot be fully aware of the magnitude and materiality of off-balance sheet environmental liabilities and thus cannot make informed judgments about legal compliance and business performance. They are deliberately flying blind.

My contention is that any of the following findings is compelling evidence that the board is not reasonably informed about the entity's environmental liabilities and related disclosures:

- The entity's reported loss reserves remain relatively flat or increase over a 5-year period despite relatively large remediation expenditures;
- The entity's reported loss reserves decline by less than $0.50 for every $1.00 spent on environmental remediation over a 5-year period;
- The entity's calculated environmental liabilities based on a discounted cash flow analysis exceed 150 percent of its reported loss reserves.
- The informational value of an entity's environmental liability disclosures is objectively lower than the majority of other companies in its industry; or

- The entity's estimated off-balance sheet environmental liabilities are material to the financial condition of the entity as a whole.

B. Legal Compliance

An important assumption underlying the don't ask don't tell policy is that it is reasonably defensible under current accounting and legal standards. Corporate directors and their legal advisors may reasonably conclude that existing disclosure requirements are so flexible that it's nearly impossible to be deemed noncompliant. Findings by the U.S. Government Accountability Office in a 2004 study of environmental disclosure support this conclusion:

> Little is known about the extent to which companies are disclosing environmental information in their filings with SEC. Determining what companies should be disclosing is extremely challenging without access to company records, considering the flexibility in the disclosure requirements. Despite strong methodological limitations, some studies provide tentative insights about the amount of environmental information companies are disclosing and the variation in disclosure among companies. However, the problem in evaluating the adequacy of disclosure is that one cannot determine whether a low level of disclosure means that a company does not have existing or potential environmental liabilities, has determined that such liabilities are not material, or is not adequately complying with disclosure requirements.[22]

Current disclosure requirements allow great latitude and my research shows that the range of informational value in reported loss reserves is wide. This flexibility, however, is not boundless. At some point, as illustrated by Tronox, the informational value of an entity's environmental liability disclosures can become so low as to be materially misleading.

Generally, directors can reasonably assume compliance with accounting standards based on the opinion of the entity's independent financial auditor. Directors should understand, however, that conformance to accounting standards is not the only criterion for legal compliance. The Sarbanes-Oxley Act (SOX) and SAB 92 impose important disclosure requirements that extend beyond accounting standards.

The SEC presumes that financial statements that do not conform to US GAAP or IFRS are misleading or inaccurate. The converse, however, is not true. Financial statements that conform to US GAAP or IFRS are not presumed to fairly present the financial condition of the entity. SOX section 302 requires the CEO and CFO to make the following certification:

[22] Environmental Disclosure: SEC Should Explore Ways to Improve Tracking and Transparency of Information, GAO-04-808 (July 14, 2004).

> Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report.[23]

The fair-presentation certification is not limited by reference to US GAAP. As stated by the SEC in the section 302 rulemaking:

> The certification statement regarding fair presentation of financial statements and other financial information is not limited to a representation that the financial statements and other financial information have been presented in accordance with "generally accepted accounting principles" and is not otherwise limited by reference to generally accepted accounting principles. We believe that Congress intended this statement to provide assurances that the financial information disclosed in a report, viewed in its entirety, meets a standard of overall material accuracy and completeness that is broader than financial reporting requirements under generally accepted accounting principles. In our view, a "fair presentation" of an issuer's financial condition, results of operations and cash flows encompasses the selection of appropriate accounting policies, proper application of appropriate accounting policies, disclosure of financial information that is informative and reasonably reflects the underlying transactions and events and 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.[24]

My research has identified a surprising number of U.S. publicly-traded corporations that do not comply with the mandatory disclosure provisions in SAB 92 and certain non-mandatory provisions in SOP 96-1. These entities disclose environmental loss reserves but do not disclose annual environmental remediation expenditures (as required by SAB 92) or annual accruals for environmental remediation liabilities (as encouraged by SOP 96-1). This information is essential for financial analysis and its omission denies analysts the ability to assess the reasonableness of the entity's reported loss reserves. The only basis in SAB 92 for not separately disclosing environmental remediation expenditures is that such expenditures are immaterial. The fact that

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[23] 17 C.F.R. § 229.601(b)(31).

[24] Securities Act Release No. 33-8124, 67 Fed. Reg. 57,276, 57,279 (Sept. 9, 2002). Case law existing prior to the passage of Sarbanes-Oxley had already established precedent for the SEC's interpretation of section 302. *See* United States v. Simon, 425 F.2d 796 (2d Cir. 1969); *see also In re* Caterpillar, Inc., Release No. 34-30532 (Mar. 31, 1992); Edison Schs., Inc., Release No. 34-45925 (May 14, 2002) (presenting financial information in accordance with GAAP might not satisfy an issuer's obligations under the antifraud provisions of the federal securities laws).

an entity separately discloses environmental loss reserves, however, indicates that the entity believes such information is material. Because of recent advances in financial analytical techniques that rely on such information, it is increasingly likely that an entity's failure to disclose details on environmental remediation accruals and expenditures will not go unnoticed by securities analysts, shareholder activists, financial auditors, and government regulators.

C. Business Performance

A second important assumption underlying the don't ask don't tell policy is that its benefits outweigh its costs. The primary benefit of the don't ask don't tell policy is avoidance of potential incremental costs associated with the collection and dissemination of prejudicial information. These incremental costs are not quantifiable, but directors may reasonably fear they could have a material or even severe impact on the entity's financial condition.

The unquantifiable benefits of the don't ask don't tell policy must be weighed against the policy's costs. These costs include impaired efficiency and effectiveness of operations, lost market capitalization, increased legal risk, and potential damage to the entity's reputation and the brand image of its products and services.

Entities cannot optimally manage efforts to resolve environmental liabilities while having their heads stuck in the sand. The don't ask don't tell policy impedes management's ability to evaluate staff performance in resolving environmental liabilities. What gets measured gets done. My research shows that for every $1.00 spent on environmental remediation over a 5-year period, a majority of corporations achieve less than $0.20 reduction in loss reserves.

The timing and amount of cash flows will vary among available alternatives to resolve environmental liabilities. An informed selection of the best alternative invariably requires investigation of existing circumstances and speculation about uncertain future outcomes. For example, consider the basic choice of retaining an environmental liability and resolving it oneself versus transferring it to a third party contractor at a fixed price. The contractor's bid will be based on a discounted expected value estimate of the contractor's costs to resolve the liability. The entity cannot make a rational retain/transfer choice if it is unwilling to develop a discounted expected value estimate of the full cost of the do-it-yourself option. To the extent that an entity incurs greater costs (measured in present value dollars) by retaining environmental liabilities instead of transferring them to a third party, this represents a quantifiable cost of the don't ask don't tell policy.

The don't ask don't tell policy creates an ongoing drag on earnings that reduces an entity's stock price and market value. An unavoidable consequence of unrealistically low loss reserves is a continuing stream of accruals. These annual accruals are required to replenish (credit) reserves for reductions (debits) for annual remediation expenditures. Accruals reduce net income. The negative impact on stock price can be calculated by multiplying an entity's long-term average

annual accruals by its long-term average price-earnings ratio. If an entity's average annual accruals relating to previously recognized liabilities over a 5-year period are $10 million and the entity's 5-year average price-earnings ratio is 20, the entity's total market capitalization is reduced by $200 million. Lost market value represents a quantifiable cost of the don't ask don't tell policy. Moreover, it is likely (albeit as yet unproved by empirical research) that markets impose a risk premium for non-transparency that further reduces stock prices.

As described above, the don't ask don't tell policy subjects an entity to elevated risk of violations of laws governing financial disclosure. It also increases the risk of debt covenants violations, fraudulent conveyances, unlawful dividends, and litigation arising from misrepresentations in loan applications and merger and acquisition agreements. Defense costs and damages from litigation represent a quantifiable cost of the don't ask don't tell policy.

Another cost of the don't ask don't tell policy is reputation and brand risk. Objective information showing that an entity is deeply engrained in the don't ask don't tell policy is incongruous with a green and sustainable image. An image of corporate social responsibility with consumers can be quickly negated by financial media reports or Internet traffic exposing an entity's dirty secrets. The proliferation of financial analytical information in coming years will increase the risk that aggressive application of the don't ask don't tell policy will not go unnoticed by shareholder activists and the media. Risk to reputation and brand image represent an unquantifiable but potentially severe cost of the don't ask don't tell policy.

Until now, it has not been possible for boards to quantitatively assess the costs and benefits of the don't ask don't tell policy. Recent advances in environmental risk transfer, however, now make it possible to cap or significantly limit an entity's financial risk for both known and unknown pollution conditions. Thus, the incremental costs of prejudicial information arising from discretionary environmental investigation, speculation, and disclosure can now largely be quantified in the form of premiums for environmental insurance. In other words, the benefits of the don't ask don't tell policy can be measured by the amount of avoided costs for environmental Insurance. This is important. If the benefits of the don't ask don't tell policy can be quantitatively weighed against the policy's costs, boards will be held accountable for doing so and responding accordingly.

X. Conclusions and Recommendations

Notwithstanding the broad flexibility afforded by the existing financial reporting framework, directors and senior management are expected to be reasonably informed about the impact of environmental liabilities and loss reserves on an entity's compliance with laws and business performance. Arguments that the inherent uncertainty surrounding environmental liabilities prevents informed judgment are undermined by recent advances in environmental risk transfer, accounting principles, and financial analysis. The existence of a large and sophisticated market

for environmental risk transfer, application of market valuation principles to certain environmental liabilities under US GAAP and IFRS, and the ability to measure the influence of management discretion and develop improved loss reserve estimates using financial analytics are all evidence that robust measurement techniques can be used to overcome the obstacles posed by imperfect information.

Recent developments warrant a reevaluation of prevailing environmental disclosure policies to determine whether they—(1) are supported by adequate information and reporting systems; (2) are reasonably defensible under existing legal and accounting standards; and (3) have advantages that outweigh their disadvantages. In response, corporate boards should incorporate financial analytics into existing information and reporting systems and implement procedures to systematically assess the impact of environmental liabilities and related disclosure policies on the entity's compliance with law and business performance.