

ELR

NEWS & ANALYSIS

Endangered Green Reports: “Cumulative Materiality” in Corporate Environmental Disclosure After Sarbanes-Oxley

by Mitchell F. Crusto

Editors' Summary: This Article describes the current state of the U.S. Securities and Exchange Commission's financial reporting requirements of corporate environmental liabilities and risks. The difficulty in quantifying these liabilities to meet the "materiality" standard under the Sarbanes-Oxley Act has led to a proposal by the American Society of Testing and Materials (ASTM) to cumulatively assess the financial impact of a company's environmental liabilities. The author advocates adoption of the ASTM's cumulative materiality standard as a more uniform, consistent benchmark instead of the current use of voluntarily published green reports. This Article is reprinted from the Harvard Journal on Legislation.

Recent corporate financial scandals involving Enron Corporation, WorldCom, Arthur Andersen, and others have heightened awareness of the need to revisit corporate accountability. Congressional response in the form of the passage of the Sarbanes-Oxley Act of 2002 raises questions about the transparency of corporate environmental disclosure.

Over the years, corporations have selectively disclosed their environmental performance. In the past, corporate environmental disclosure was driven by three things: environmental compliance statutes, federal securities law, and public relations. Corporations sought to positively influence investor and public opinion of their environmental record through the use of the “green report”; typically a glossy, unaudited showcase of corporate environmental good deeds. However, the Enron scandal and Sarbanes-Oxley are likely to change what corporations disclose as to their environmental matters.

This Article explores the impact that post-Enron corporate reform, and specifically Sarbanes-Oxley, has had on corporate environmental financial disclosure, particularly green reports. Part I provides an overview of the current environmental disclosure landscape and pressure for reform

after Sarbanes-Oxley. Part II details the shortcomings of corporate, investor, and regulatory efforts to encourage corporate compliance with environmental regulations, creating a need for more accurate environmental disclosure. Part III describes the current demand for a heightened standard of corporate environmental disclosure and the U.S. Securities and Exchange Commission's (SEC's) attempts at establishing a satisfactory disclosure standard. Part IV analyzes the central feature of a current corporate environmental disclosure proposal developed and presented by the American Society of Testing and Materials (ASTM), which would require a cumulative assessment of the financial impact of all environmental liabilities for “materiality.” This cumulative materiality standard (CMS), if adopted, would replace the present SEC standard of materiality for each proceeding or liability. The author concludes that while Sarbanes-Oxley does not expressly address corporate environmental disclosure, large economic entities, including publicly traded corporations and the federal government, should adopt the ASTM CMS over voluntarily published green reports.

I. The Demise of Voluntary Corporate Environmental Disclosure or Green Reports After Enron Reforms?

Recent corporate financial scandals involving Enron, WorldCom, Arthur Andersen and others have led to the passage of significant legislation affecting, inter alia, corporate financial disclosure.¹ These recent financial reporting scan-

Mitchell F. Crusto is Professor of Law, Loyola University School of Law. He is also a Visiting Professor of Law at Vermont Law School. He holds a B.A. from Yale University, 1975; a B.A. from Oxford University, 1980; a J.D. from Yale Law School, 1981; and an M.A. from Oxford University, 1985. Special thanks go to those who have contributed to this Article, including the faculty, research assistants, administrative assistants, students, and staff at the Loyola University School of Law and Vermont Law School. Professor Crusto gratefully thanks the research assistance provided through the generosity of the Alfred T. Bonomo Sr. Family and the Rosario Sarah LaNasa Memorial Fund. This Article resulted from a Vermont Law School lecture entitled “Corporate Environmental Disclosure After Enron: Green Reports Under Fire,” June 24, 2002.

1. See Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, 116 Stat. 745 (2002); see also Philip E. Karmel, *SEC Disclosure Requirements for Environmental Liabilities and the Impact of the Sarbanes-Oxley Act*, in *NEW SOLUTIONS TO ENVIRONMENTAL PROBLEMS IN BUSINESS AND REAL ESTATE DEALS* 293, 297-98 (Practising Law Inst., Real Estate Law and Practice Course, Handbook Series, 2003)

dals raise red flags concerning corporate accountability generally and particularly question the future of corporate environmental disclosure.² While Sarbanes-Oxley does not directly speak to corporate environmental disclosure, it is important to those disclosures for several reasons. By directing chief executive officers (CEOs) to certify their company's financial statements, Sarbanes-Oxley heightens the standard for all corporate disclosures.³ In addition, Sarbanes-Oxley creates a new oversight board that will promote more exacting, independent accounting principles to guide corporate disclosures.⁴ More importantly, Sarbanes-Oxley represents a milestone in corporate disclosures from fuzzy corporate disclosure standards to those promoting transparency.⁵ Because of all this, now is an appropriate time, especially for the environmental lawyer,⁶ to reconsider corporate environmental disclosure in light of recent changes in corporate accountability.⁷

A. Seminal Study of Corporate Environmental Disclosure

There is a dearth of academic work relating to corporate environmental disclosure after Sarbanes-Oxley. The few published articles appear in professional journals written by knowledgeable lawyers and accountants.⁸ Most of these articles have a similarity to them; they review the history of recent developments in corporate environmental disclosure,

(“Sarbanes-Oxley . . . was prompted largely by the Enron meltdown, which resulted from its failure to disclose facts that were important for an understanding of the substance of its transactions with off-balance sheet entities.”); *see generally* In re Enron Corp. Sec., Derivative & Erisa Lit., 235 F. Supp. 2d 549 (S.D. Tex. 2002) (providing details into the scandal that lead to the passage of Sarbanes-Oxley); American Inst. of Certified Pub. Accountants, *Summary of Sarbanes-Oxley Act of 2002*, at http://www.aicpa.org/info/sarbanes_oxley_summary.htm (last visited Mar. 12, 2005) (presenting a summary of Sarbanes-Oxley).

2. A number of excellent articles have recently been published (usually written by practicing attorneys) on the importance of viewing corporate environmental disclosure in light of the Enron-era scandals. *See, e.g.,* Andrew N. Davis & Stephen J. Humes, *Environmental Disclosures After Sarbanes-Oxley*, PRAC. LAW., June 2004, at 19, 20 (“Although Sarbanes-Oxley has not yet mandated that the [SEC] amend the environmental disclosure rules, the legal context within which they must now be read has changed significantly.”); *see also* Karmel, *supra* note 1, at 297-98 (“[Sarbanes-Oxley’s] scope is much broader . . . and requires the SEC to engage in a number of complex rulemakings that will affect all SEC disclosure documents and the bar.”).
3. *See* 15 U.S.C.A. §7241.
4. *See id.* §§7211, 7213.
5. *See* discussion *infra* notes 107-12.
6. *See* Karmel, *supra* note 1, at 298, 315, 319 (noting that the two provisions “most likely to affect environmental practitioners” are new rules requiring disclosure of off-balance sheet arrangements and reporting of material violations to a company’s chief legal officer or chief executive officer (CEO)); *see also* SEC, *Disclosure in Management’s Discussion and Analysis About Off-Balance Sheet Arrangements and Aggregate Contractual Obligations*, 17 C.F.R. §§228, 229, 249 (2003); SEC, *Implementation of Standards of Professional Conduct for Attorneys*, 17 C.F.R. §205 (2003); Pamela R. Esterman, *Ethical Issues in Environmental Law*, ALI-ABA Course of Study, *Environmental Law*, 333, 335 (Feb. 11-13, 2004) (“Although the ethical problems faced by environmental lawyers are not unique, the issues posed are often exacerbated by the nature of the practice, with its technical and scientific aspects, its political overtones, and its significant implications for public health and safety.”).
7. For a companion article, see Mitchell F. Crusto, *Green Business: Should We Revoke Corporate Charters for Environmental Violations?*, 63 LA. L. REV. 175 (2003).
8. *See, e.g.,* Davis & Humes, *supra* note 2; Karmel, *supra* note 1.

noting how Sarbanes-Oxley will likely result in a higher standard of environmental disclosure.⁹

Unfortunately, there is little, if any, critical analysis of increased corporate environmental disclosure in the academy. This Article hopes to begin a dialogue on the desirability of an increased standard in corporate environmental disclosure. In doing so, the author acknowledges the work of Prof. Larry Ribstein in his recent critical analysis of Sarbanes-Oxley.¹⁰ This Article aspires to bring Professor Ribstein’s critical eye to the issue of heightened corporate environmental disclosures.

B. Timely, Relevant Analysis of Corporate Environmental Disclosure

This Article seeks to evaluate the state of corporate¹¹ environmental disclosure. There are three reasons to evaluate corporate environmental¹² disclosure.¹³ First, corporate environmental disclosure is investor-focused. Such disclosures, if not fully and fairly accounted for, could constitute material errors or omissions in violation of federal securi-

9. *See* Richard M. Schwartz & Donna Mussio, *Environmental Disclosure Requirements Under the Federal Securities Laws*, 1424 PLI/CORP. 372, 372-73 (2004) (arguing that the new SEC rules on certification and material violation reporting “should provide a strong incentive to ensure that there is a well-documented system to ensure the accuracy of environmental disclosures and appropriate consideration and accounting treatment of potential environmental liabilities”); *see also* Davis & Humes, *supra* note 2, at 23 (noting that risk disclosures filed with the SEC must include “identification of known and unknown environmental liabilities and risk, including liabilities associated with discontinued operations”).
10. Larry E. Ribstein, *Market Versus Regulatory Responses to Corporate Fraud: A Critique of the Sarbanes-Oxley Act of 2002*, 28 J. CORP. L. 1, 36-47 (2002) (critiquing Sarbanes-Oxley’s reliance on regulation as an inefficient approach to corporation fraud).
11. Corporate is defined as any large business enterprise, including but not limited to large publicly traded corporations. *See* LARRY E. RIBSTEIN & PETER V. LETSOU, *BUSINESS ASSOCIATIONS* 8 (3d ed. 1996). The term corporate for purposes of this Article includes all economic entities whose operations have a significant impact on the environment, regardless of their legal composition, and as such includes publicly traded corporations, federal and state governments, limited liability companies, and private, nonpublicly traded entities. While it is recognized that large publicly traded corporations are under greater legal obligation to disclose financial information to the investing public, this Article is not limited to legally required disclosures for publicly traded corporations under the federal securities laws.
12. Environmental is defined as environmental, health, and safety matters, including those regulated under international, federal, state, and local environmental, health, and safety laws and regulations, as well as any voluntary industry or entity self-imposed initiatives, such as the former Chemical Manufacturing Association’s Responsible Care® Program or Monsanto Corporation’s “Monsanto Pledge.” *See* RICHARD J. MAHONEY, *A COMMITMENT TO GREATNESS* 30-39 (1988) (setting goals to create and operate chemical plants that are environmentally safe for both its employees and its community). Throughout this Article, the word environmental expressly includes environmental protection, as well as human health and safety, unless expressly stated otherwise.
13. Disclosure is defined as publicly published information relating to an economic entity’s environmental, health, and safety impacts, including, but not limited to, legal and extra-legal liabilities; environmental, health, and safety expenditures; product life-cycle analysis impacts; and reports from other analytical tools to measure and assess impacts. *See* Davis & Humes, *supra* note 2, at 20-23. While most of the following discussion directly relates to publicly traded corporations under direct control of the SEC, all large business entities, including the federal government, should be required to comply with heightened environmental disclosure standards.

ties regulations.¹⁴ And even where such omissions do not technically violate federal security laws, or where the economic entity is not subject to federal securities law, proactive corporate environmental disclosure serves to benefit investors who have a right to know what investment risks they are taking.

Second, corporate environmental disclosure is economic entity-focused. Corporate environmental disclosure, when properly performed, serves the business interests of the economic entity by improving the entity's ability to forecast its financial future.¹⁵ If a business entity conducts a truly honest and thorough financial analysis of its environmental impacts, it will be in a better position to plan its financial future. In a worst-case scenario, a business entity may conclude that its environmental impacts might be greater than its assets or projected income.

This economic focus is at the core of a new scholarly discipline, environmental business, emerging in boardrooms and classrooms across the nation, which employs principles of strategic corporate environmental management.¹⁶ Corporate environmental disclosure should be viewed broadly through a multidisciplinary lens, taking into account legal compliance, governmental and community relations, and business management principles. Commentators note that this new discipline does just that by incorporating principles of risk reduction, auditing, public accountability, planning, business practices, community and employee involvement, and cost management.¹⁷ The tools of this incorporation include life-cycle analysis,¹⁸ environmental or full-cost accounting,¹⁹ international environmental standards such as the International Organization for Standardization (ISO) 14000,²⁰ sustainable manufacturing,²¹ pollution prevention

strategies,²² and total quality management.²³ A successful integration of these tools into a single business strategy is "strategic environmental management," or "the pursuit of competitive advantage through environmental management strategies."²⁴ In recent years, many corporations have recognized the need for implementing strategic environmental management, including the use of public disclosure.²⁵

The third, and most significant, reason to improve corporate environmental disclosure is human rights-focused. The primary and most compelling reason for environmental, health, and safety laws is the protection of human health and safety.²⁶ Promoting a better environment through heightened corporate environmental disclosure could have the desired effect of enhancing people's physical and emotional health and safety by cleaning pollution, reducing toxins, and producing safer products. Overall, the public, consumers, and investors are entitled to complete and accurate disclosure about corporate environmental behavior.²⁷ Without this information, they are unable to make informed decisions about which company's products to support, stock to buy, and permits to renew.

The three foregoing reasons provide incentive to evaluate corporate environmental disclosure, and it is timely to do so now. This analysis comes at a critical time in our nation's corporate, political, and environmental history.²⁸ Investor confidence is at an all-time low, as represented by the U.S. Congress' recent passage of Sarbanes-Oxley.²⁹ Also, Amer-

duction, 'Market and After-Market,' and full-cost accounting." FRIEDMAN, *supra* note 16, at 84, 111-12.

14. See Schwartz & Mussio, *supra* note 9, at 333 (outlining a host of SEC requirements regarding the recordation and disclosure of environmental loss contingencies, as well as various accounting standards and guidance documents).
15. See Noah Walley & Bradley Whitehead, *It's Not Easy Being Green*, in HARVARD BUSINESS REVIEW ON BUSINESS AND THE ENVIRONMENT 102-03 (2000).
16. See FRANK B. FRIEDMAN, PRACTICAL GUIDE TO ENVIRONMENTAL MANAGEMENT 51 n.1 (8th ed. 2000) (referring to a report that "as of May 1995, up to 50 business schools and 100 other schools included 'environmental business' courses in their curricula" (citing ENV'T TODAY, May 1995, at 1)).
17. See, e.g., BRADEN R. ALLENBY, INDUSTRIAL ECOLOGY: POLICY FRAMEWORK AND IMPLEMENTATION (1999); BRUCE W. PIASECKI ET AL., ENVIRONMENTAL MANAGEMENT AND BUSINESS STRATEGY: LEADERSHIP SKILLS FOR THE 21ST CENTURY (1999); Susan J. Colby et al., *The Real Green Issue: Debunking the Myths of Environmental Management*, 2 MCKINSEY Q. 132 (1995).
18. Product life-cycle analysis is "a detailed balance sheet of the energy and material inputs and outputs of a carefully defined system, such as a product, activity, or set of processes [and] encompasses everything from raw material production to end-of-life alternatives such as incineration . . . to better understand the full environmental cost of production . . ." FRIEDMAN, *supra* note 16, at 82 & nn.127-28.
19. Full-cost accounting, activity-based costing, and the Eco-Audit are attempts to take an accounting-based strategy to environmental management by first adding a cost to environmental expenses and activities and then making sound management decisions using a cost-based analysis. See Crusto, *supra* note 7, at 212; Bryan T. Downes, *Toward Sustainable Communities—Lessons From the Canadian Experience*, 31 WILLAMETTE L. REV. 359, 383 n.180 (1995).
20. See generally JOSEPH CASCIO, THE ISO 14000 HANDBOOK (1996) (describing the ISO's voluntary consensus environmental management standards).
21. "Sustainable manufacturing . . . applies the sustainable development concept to manufacturing . . ." and addresses materials selection, pro-
- duction, 'Market and After-Market,' and full-cost accounting." FRIEDMAN, *supra* note 16, at 84, 111-12.
22. See, e.g., New Jersey Pollution Prevention Act, N.J. ADMIN. CODE tit. 7, §1K-4.3(b)(6) (2000) (seeking to encourage companies' substitution of pollution prevention for costly waste management strategies).
23. See Global Environmental Management Initiative (GEMI), Proceedings—Corporate Quality/Environmental Management: The First Conference (Washington, D.C., Jan. 9-10, 1991), noted in FRIEDMAN, *supra* note 16, at 76-79 & n.108.
24. FRIEDMAN, *supra* note 16, at 73; see, e.g., ALLENBY, *supra* note 17; PIASECKI ET AL., *supra* note 17; Colby et al., *supra* note 17.
25. See BRUCE SMART, BEYOND COMPLIANCE—A NEW INDUSTRY VIEW OF THE ENVIRONMENT 188 (1992); GEMI, ENVIRONMENT: VALUE TO BUSINESS 49 (1998), available at http://www.gemi.org/EVTB_001.pdf (last visited Mar. 12, 2005).
26. See generally RACHEL CARSON, SILENT SPRING (1962); JOHN KENNETH GALBRAITH, THE AFFLUENT SOCIETY (1958).
27. See ROBERT W. HAMILTON, CORPORATIONS INCLUDING PARTNERSHIPS AND LIMITED LIABILITY COMPANIES 603-18 (2001) (providing an overview and excerpts of leading discussions of the corporate social responsibility debate); Elizabeth Glass Geltman & Andrew E. Skrobback, *Environmental Law and Business in the 21st Century: Environmental Activism and the Ethical Investor*, 22 J. CORP. L. 465, 466, 470 (1997) (pointing out that 76% of Americans consider themselves environmentalists (Gallup poll), and that environmental concerns run throughout the corporation, not just management); Robert W. Hamilton, *Corporate Governance in America 1950-2000: Major Changes But Uncertain Benefits*, 25 J. CORP. L. 349, 354-57 (2000). Cf. Michael D. Goldman & Eileen M. Filliben, *Corporate Governance: Current Trends and Likely Developments for the Twenty-First Century*, 25 DEL. J. CORP. L. 683, 700-03 (2000) (noting a surge in shareholder activism since the 1990s).
28. See Davis & Humes, *supra* note 2, at 20 (noting that the U.S. General Accountability Office (GAO) has been studying environmental disclosures upon the U.S. Senate's October 2002 request).
29. See *Testimony Concerning Implementation of the Sarbanes-Oxley Act of 2002 Before the Senate Comm. on Banking, Housing, and Urban Affairs*, 108th Cong. 4-5 (2003) (statement of William H. Donaldson, Chairman, SEC), available at http://banking.senate.gov/_files/donaldsn.pdf (last visited Apr. 16, 2005); Lyman P.Q. Johnson & Mark A. Sides, *Corporate Governance and the Sar-*

ican business is facing uncertainty coming out of the recent economic downturn, highlighting a greater need for accurate and effective financial forecasting and business planning.³⁰ In addition, some commentators believe that the present political regime, including the Bush Administration, a Republican-led Congress, and a conservative-controlled U.S. Supreme Court, has greatly exposed the public to environmental, health, and safety harms.³¹

An evaluation of corporate environmental disclosure is therefore both important and timely. This is especially true in light of both the current corporate practice of issuing quasi-voluntary³² disclosure documents known as green reports,³³ and increased public interest and investor groups' demand that the critical regulatory SEC disclosure standard of materiality be heightened.³⁴

banes-Oxley Act: The Sarbanes-Oxley Act and Fiduciary Duties, 30 WM. MITCHELL L. REV. 1149, 1153 (2004); John Paul Lucci, *Enron—The Bankruptcy Heard Around the World and the International Ricochet of Sarbanes-Oxley*, 67 ALB. L. REV. 211, 248–49 (2003).

30. See Lucci, *supra* note 29, at 222–31.

31. See, e.g., R. Randall Kelso, *Narcissism, Generation X, the Corporate Elite, and the Religious Right Within the Modern Republican Party: A Set of "Friendly" Observations for President Bush*, 24 CARDOZO L. REV. 1971, 1991 (2003).

32. Quasi-voluntary is the author's qualifier for green reports, because only some of the environmental information disclosed therein is legally required by federal statutes.

33. Green reports are defined as mainly voluntary, annual reports that large, often publicly traded corporations issue to the public. They contain some legally mandated environmental, health, and safety information (such as emissions of toxic chemicals), as well as self-promotional examples of proactive environmental projects (such as wildlife protection refuges). See, e.g., *The Coca-Cola Environmental Management System*, at www2.coca-cola.com/citizenship/eKOSystem.pdf (last visited Apr. 12, 2005); *Disney's Environmentalism*, at <http://corporate.disney.go.com/environmentality/index.html> (last visited Apr. 12, 2005). They usually highlight corporate environmental accomplishments, often while simultaneously drowning out corporate environmental failures. See David F. Sand & E. Ariane van Buren, *Environmental Disclosure and Performance: The Benefits of Standardization*, 12 CARDOZO L. REV. 1347, 1355 (1991); *Corporate Reporting*, BUS. ENV'T, Aug. 2002, at 6 (citing a recent KPMG survey showing that 45% of the Global Fortune 500 are preparing environmental, social, or sustainability reports in addition to their annual financial reports). Many are glossy public relation pamphlets; none are fully audited according to established standards. See David W. Case, *Legal Considerations in Voluntary Corporate Environmental Reporting*, 30 ELR 10375 (May 2000). The federal government published its own version of a green report with the Council on Environmental Quality's Annual Report, published in accordance with sections of the National Environmental Policy Act (NEPA) of 1969. See 42 U.S.C. §§4321-4370d, ELR STAT. NEPA §§2-209; ENVIRONMENTAL QUALITY—THE WORLD WIDE WEB (1997), available at <http://ceq.eh.doe.gov/nepa/reports/1997/> (last visited Apr. 8, 2005).

34. See, e.g., Revised Petition from Jill Ratner, President, Rose Foundation for Communities and the Environment, to Jonathan G. Katz, Secretary, SEC, SEC File #4-463, at <http://www.sec.gov/rules/petitions/petn4-463.htm> (last visited Mar. 12, 2005) (urging the SEC on behalf of the Rose Foundation, a coalition of charitable foundations and socially responsible investment funds, to clarify the concept of materiality with respect to environmental liabilities and compliance with existing disclosure requirements). Materiality involves the issue of what information publicly traded companies are legally required to disclose to the public, especially, as relevant here, concerning corporate environmental liabilities from threatened or actual legal proceedings and the financial costs of environmental compliance with present and emerging governmental laws and regulations. See SEC Staff Accounting Bulletin (SAB) No. 99, 17 C.F.R. §211 (2004) (containing the most recent authoritative literature on materiality); Davis & Humes, *supra* note 2, at 20–21.

II. Current Corporate, Investor, and Regulatory Efforts Fail to Promote Corporate Environmental Compliance

A. Corporate Structure and Corporate Law Hinder Voluntary Environmental Protection

After the federal government, large corporations³⁵ are the greatest concentration of wealth, resources, and power in the United States.³⁶ Although some large corporations promote environmental protection by complying with the 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or "Superfund" law,³⁷ corporate status provides limited liability, which frustrates environmental protection by shielding corporations from sanctions for statutory violations. As a result of the ease of maintaining corporate status, corporations have little or no pressure from incorporating host states to comply fully with challenging environmental laws.³⁸ While some unique "piercing the corporate veil" cases involve federal environmental violations,³⁹ a corporation will lose its corporate status for violating environmental laws only in extremely limited instances.⁴⁰ That is not to say that corporations do not face substantial compliance pressures under other federal and state environmental laws.⁴¹

Although corporate laws may place little pressure on corporations to conform to environmental regulations, corporations may try to comply with environmental laws to serve shareholder interests. Corporate behavior is driven by shareholder return on investment.⁴² Therefore, because environmental protection might maximize shareholder profits by reducing the damage future pollution causes under a cost-benefit analysis, economic self-interest might favor healthier environmental policies. For example, one Johns Hopkins Medical Center study showed that spending \$27 billion to comply with the Clean Air Act would save American companies up to \$110 billion in health care costs.⁴³

While better environmental practices might increase shareholder profits under a cost-benefit analysis, internal

35. Often referred to as publicly traded or publicly held corporations or public companies, these business entities are regulated by the SEC. See generally WILLIAM L. CARY & MELVIN ARON EISENBERG, *CASES AND MATERIALS ON CORPORATIONS* 324-74 (7th ed. 1995).

36. For a detailed analysis of corporate structure undermining environmental protection, see Crusto, *supra* note 7, at 183-88.

37. See 42 U.S.C. §§9601-9675, ELR STAT. CERCLA §§101-405; EPA'S SUPERFUND REPORT (Inside Washington Pubs. 2005), available at <http://www.insideepa.com> (last visited Mar. 12, 2005); see generally Thomas J. Schoenbaum et al., *Superfund and Hazardous Waste Liability*, in ENVIRONMENTAL POLICY LAW 583-706 (4th ed. 2002).

38. See Mark J. Loewenstein, *Delaware as Demon: Twenty-Five Years After Professor Cary's Polemic*, 71 U. COLO. L. REV. 497, 503-07 (2000).

39. See HAMILTON, *supra* note 27, at 337-47; see also United States v. Bestfoods, 524 U.S. 51, 62, 28 ELR 21225 (1998) (recognizing potential shareholder liability in a CERCLA context when "the corporate form would otherwise be misused to accomplish certain wrongful purposes").

40. See Crusto, *supra* note 7, at 188.

41. See *id.* at 186-87, 221.

42. For a detailed analysis of environmental protection benefitting shareholders financially, see *id.* at 175, 240.

43. See Margaret Graham Tebo, *Fertile Waters*, A.B.A. J., Feb. 2001, at 40-41.

corporate reforms might mandate environmental compliance as part of the corporate governance movement. In general, however, recent attempts at corporate reform appear to have had little effect on corporate behavior.⁴⁴ The emergence of “other constituency” or “alternative constituency” statutes⁴⁵ that allow corporate management to broaden its focus beyond maximizing shareholder profits to promoting employee and community welfare has not led to significant reform. The American Law Institute’s (ALI’s) Corporate Governance Project published a 1992 report proposing that legal compliance becomes a corporate obligation, not an option subject to cost-benefit analysis.⁴⁶ Additionally, the ALI *Principles of Corporate Governance (Principles)* encouraged corporations to devote reasonable resources to public welfare and humanitarian, educational, and philanthropic purposes.⁴⁷ If followed, the ALI *Principles* could thus encourage environmental protection compliance and reporting even if the cost-benefit analysis does not favor compliance. While it was expected that the *Principles* would have a profound effect on corporate law, in fact, “its influence on the long-term development of corporation law is still unclear.”⁴⁸

Overall, there are systemic and structural reasons why publicly traded corporations are not proactive when it comes to environmental disclosures. They are concentrations of wealth and power, and their protections under the rules of corporate law make them impervious to change. Because corporate purpose is too narrowly focused on enhancing shareholder value, legal compliance is considered an option and not a mandate. Corporate law also shields shareholders from environmental liability by the limited liability doctrine. Although some recent developments support greater input into corporate decisionmaking, many features of U.S. corporate law hinder environmental protection, and there is thus a great need to promote more accurate environmental disclosure.

B. Investment Community Fails to Change Corporate Environmental Behavior

Although corporate law fails to promote environmental protection, corporations are influenced by other factors, such as investor opinion.⁴⁹ Many investors have promoted socially responsible corporate principles, including environmental protection.⁵⁰ Since undisclosed liabilities can deflate stock

trading value due to the expenses of environmental compliance, shareholders demand more disclosure on environmental policies.

For example, over 60 companies have endorsed the Coalition for Environmentally Responsible Economies (CERES) *Principles*,⁵¹ a series of environmental protection pledges that were originally introduced as the *Valdez Principles* in 1989 by a partnership of environmental groups and institutional investors.⁵² The annual CERES report is distributed to mutual funds and investors with the intent of increasing investment in socially responsible companies.⁵³ Following this model of ethical investing, recent shareholder proposals have ranged from general calls for companies to adopt environmental values to specific demands for environmental compliance.⁵⁴ Despite continuing shareholder demand for corporate environmental change, such proposals generally fail to win full shareholder approval, and investors have had little success in reforming corporate environmental practices.⁵⁵ Investor pressure to nudge or force corporations to act in an environmentally friendly manner, however, may have influenced the present trend of self-regulation by corporations.⁵⁶

C. The U.S. Environmental Protection Agency (EPA) Has Failed to Systemically Change Corporate Environmental Behavior

In the last century, the federal government has regulated corporate environmental compliance through EPA, the federal agency primarily responsible for protecting human health and the environment.⁵⁷ EPA regulation is flawed, however, because it might deter qualified individuals from seeking to work for a company with the threat of liability, and both civil fines and criminal sanctions have generally failed to induce environmental compliance. Since civil and criminal efforts are ineffective, EPA has experimented with alternatives to regulation, such as the Environmental Leadership Program, a voluntary partnership between the agency and participating corporations designed “to encourage and publicly recognize environmental leadership and promote pollution prevention.”⁵⁸

Although these innovative nonregulatory programs may help encourage environmental compliance, EPA’s general

44. For a detailed analysis of corporate governance reforms failing to increase environmental compliance, see Crusto, *supra* note 7, at 193-95.

45. See HAMILTON, *supra* note 27, at 615.

46. See ALI, PRINCIPLES OF CORPORATE GOVERNANCE §2.01 cmt. g (1992) [hereinafter PRINCIPLES]. For a critique of PRINCIPLES, see DOUGLAS M. BRANSON, CORPORATE GOVERNANCE (1993). See generally CHARLES HANSEN, A GUIDE TO THE AMERICAN LAW INSTITUTE CORPORATE GOVERNANCE PROJECT 1-7 (1995) (providing background on the *Principles*).

47. See PRINCIPLES, *supra* note 46, §2.01(b)(2) and (3).

48. HAMILTON, *supra* note 27, at 237 (noting that as of the summer of 2000, the *Principles* had been cited only 50 times by state appellate courts and 23 times by federal appellate courts).

49. See CARY & EISENBERG, *supra* note 35, at 249-50; see also *Investor Responsibility Research Center*, at <http://www.irc.com> (last visited Mar. 12, 2005). For a detailed analysis of shareholder proposals to increase environmental compliance, see Crusto, *supra* note 7, at 224-26.

50. See HAMILTON, *supra* note 27, at 623-33.

51. See CERES, *Coalition and Companies*, at http://www.ceres.org/coalitionandcompanies/company_list.php (last visited Apr. 17, 2005) (listing over 60 endorsing companies, including several Fortune 500 corporations).

52. See MELVIN ARON EISENBERG, CORPORATIONS AND OTHER BUSINESS ORGANIZATIONS 313-27 (2000); CERES, *About Us*, at <http://www.ceres.org/ceres/about.php> (last visited Apr. 17, 2005) (describing the history and function of CERES).

53. See <http://www.ceres.org/ceres/about.php> (last visited Apr. 17, 2005) (describing CERES’ role in promoting more disclosure and corporate accountability).

54. See Geltman & Skrobback, *supra* note 27, at 468.

55. See HAMILTON, *supra* note 27, at 623-33.

56. See discussion *infra* Part III.A.1.

57. See Crusto, *supra* note 7, at 222-24 (providing a detailed analysis of EPA efforts to push for corporate environmental compliance).

58. Environmental Leadership Program, 58 Fed. Reg. 4802 (Jan. 15, 1993). EPA has established other initiatives for changing corporate environmental behavior, including Project XL, Energy Star, and other “partnership” projects. See *Industry Partnerships*, at www.epa.gov/epahome/industry.htm (last visited Mar. 12, 2005) (detailing voluntary industry programs seeking to promote cost-effective environmental protection).

regulatory functions may be ill suited to change corporate practices. Since civil and criminal sanctions have not substantially altered corporate behavior, EPA has largely failed to engender corporate environmental compliance.

III. The Demand for a Heightened Standard of Corporate Environmental Disclosure

A. Various Sources of Recent Demand for a Heightened Disclosure Standard

In the three years since the passage of Sarbanes-Oxley, many corporate constituents have argued the need for heightening the standard of corporate environmental disclosure, based upon a discrepancy between the cost of environmental compliance and the cost of corporate disclosure of environmental expenditures and liabilities.⁵⁹ These demands have come from public interest groups, institutional investors, the insurance industry, standard-setting organizations, industry itself, EPA, and even Congress.

There is growing activism⁶⁰ among institutional investors⁶¹ in publicly traded corporations demanding that corporations disclose more environmental information.⁶² Many active investor groups are promoting greater environmental disclosure nationally and internationally, including the Council on Economic Priorities (CEP)⁶³ and the Investor Responsibility Research Center (IRRC).⁶⁴ On July 23, 2004, the IRRC released an investor guide outlining specific strategies for addressing the financial risks and investment opportunities posed by global warming.⁶⁵

Many other institutional investors have engaged in similar activities promoting greater corporate environmental disclosure, such as the Carbon Disclosure Project (CDP), a “coordinating secretariat” for 143 institutional investors with assets of \$20 trillion.⁶⁶ In May 2002, November 2003, and again in February 2005, the CDP wrote to the 500 largest companies in the world (by market capitalization), requesting disclosure of investment information concerning greenhouse gas emissions.⁶⁷

On August 21, 2002, the Rose Foundation for Communities and the Environment, along with 20 environmental and community foundations (including the Rockefeller Family Fund) representing over \$2 billion in combined assets, submitted a rulemaking petition to the SEC, requesting that the SEC adopt the ASTM heightened environmental disclosure standards.⁶⁸ Along with the petition, the Rose Foundation released a report documenting how corporate environmental liabilities can impair shareholder value.⁶⁹ The Rose Foundation petition supported modifying the ASTM standards from precatory language to mandatory language. For example, the proposed rule would read: “Disclosure shall be made when an entity believes its environmental liability for an individual circumstance or its environmental liability in the aggregate is material” instead of recommending that disclosure “should” be made as provided by ASTM standards.⁷⁰

The insurance industry also has a lot at stake and has not been silent on the issue. As noted above, insurance companies are major institutional investors in publicly traded corporations.⁷¹ In addition to their role and interest as investors, insurance companies are interested in corporate environmental disclosure for another reason: their bottom line. As corporations seek to manage risk through the use of environmental insurance, insurance companies have become very interested in the quality of corporate environmental disclosure.⁷² Also, as corporations are held liable for environmental matters, they have sought indemnification from their insurance carriers, and “no issue in all of business law has been more vigorously contested in the last quarter-century” than environmental liability claims.⁷³ As a result, some in-

59. See Richard M. Schwartz & Donna Mussio, *Environmental Due Diligence for Securities Offerings*, in PRE-CONFERENCE BRIEFING TO THE 35TH ANNUAL INSTITUTE ON SECURITIES REGULATION: COUNSELOR OR ENFORCER? THE ROLE OF THE CORPORATE LAWYER POST SARBANES-OXLEY (Practising Law Inst., Corporate Law and Practice Course, Handbook Series, PLI Order No. B0-01 NC 509, 512-17, 2003) (citing and describing a list of sources and actions that show increased scrutiny of environmental disclosure in recent years).

60. See CARY & EISENBERG, *supra* note 35, 247-54 (discussing investor activism, particularly as to shareholders).

61. Institutional investors are institutions such as public and private pension funds, investment companies (including mutual funds), insurance companies, bank and trust companies, and foundations that invest in publicly traded companies. Over the last several years, there has been an increased concentration of shareholdings in publicly traded corporations “due to the dramatic increase of shareholdings by institutional investors.” CARY & EISENBERG, *supra* note 35, at 244-45.

62. See INVESTOR RESPONSIBILITY RESEARCH CENTER, ENVIRONMENT: MANAGEMENT AND REPORTING 2004, at 3 (2004) (reporting that proponents of increased environmental management and disclosure submitted 25 corporate resolutions in 2003, and 19 resolutions in 2004); Clifford Rechtschaffen, *Deterrence Versus Cooperation and the Evolving Theory of Environmental Enforcement*, 71 S. CAL. L. REV. 1181, 1248-49 (1998).

63. The Council on Economic Priorities is a socially responsible corporate watchdog who has over the years issued detailed, but sometimes inaccurate, environmental reports on corporations. See Council on Economic Priorities, at <http://www.cepnyc.org/ccawin2000.htm> (last visited Mar. 12, 2005); FRIEDMAN, *supra* note 16, at 156.

64. The IRRC considers itself “the worldwide leader in investor and corporate responsibility research and services [and] the oldest and the largest company . . . supporting good corporate governance.” Message from Linda Crompton, President and CEO, at http://www.irrc.com/company/company_home.htm (last visited Mar. 12, 2005).

65. See IRRC, INVESTOR GUIDE TO CLIMATE RISK (2004), available at <http://www.irrc.com/resources/ClimateGuide.pdf> (last visited Mar. 12, 2005) (noting its commission by CERES, “a coalition

of investor, environmental, labor, and public interest groups working together to increase corporate environmental responsibility worldwide”).

66. See Carbon Disclosure Project, *About Carbon Disclosure Project*, at <http://www.cdproject.net/about.asp> (last visited Mar. 12, 2005) (providing an overview of CDP activities).

67. See *id.*

68. See Revised Petition from Jill Ratner, *supra* note 34; see also William Baue, *SEC Urged to Strengthen Rules Governing Corporate Disclosure of Environmental Risks*, at <http://www.socialfunds.com/news/article.cgi/article911.html> (last visited Mar. 12, 2005).

69. SUSANNAH BLAKE GOODMAN ET AL., THE ENVIRONMENTAL FIDUCIARY: THE CASE FOR INCORPORATING ENVIRONMENTAL FACTORS INTO INVESTMENT MANAGEMENT POLICIES 3-16 (The Rose Foundation for Communities and the Environment ed., 2002), available at <http://www.rosefdn.org/images/EFreport.pdf> (last visited Feb. 15, 2005).

70. See Revised Petition from Jill Ratner, *supra* note 34; Schwartz & Mussio, *supra* note 9, at 383.

71. See CARY & EISENBERG, *supra* note 35, at 244-45.

72. See Eileen Pleva & Peter Gilbertson, *Reconciling Environmental Disclosure With Environmental Exposure in an Evolving Regulatory Climate*, AIG ENVIRONMENTAL WHITE PAPER, at <http://erraonline.org/spring2003SEC.htm> (last visited Apr. 8, 2005).

73. ROBERT H. JERRY II, UNDERSTANDING INSURANCE LAW 556 n.615 (2002) (citing KENNETH S. ABRAHAM, ENVIRONMENTAL LIABILITY

insurance companies abroad are demanding greater corporate environmental disclosure.⁷⁴

Although standard-setting nongovernmental organizations (NGOs) do not have a financial stake in disclosure reform like investors and the insurance industry do, several of these NGOs have pushed to improve corporate environmental reporting. In 2002, the ASTM, one of the largest voluntary standards development organizations in the world, published two benchmark documents: the *Standard Guide for Disclosure of Environmental Liabilities* and the *Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters*.⁷⁵ Their major proposal is to heighten the SEC's materiality test for corporate environmental disclosure, which would force corporations to disclose more information on potential liabilities in the aggregate.⁷⁶

Another NGO, the ISO, sets voluntary standards by which companies conduct business in other countries, but compliance may become mandatory as emerging markets incorporate ISO standards into their environmental laws.⁷⁷ Its newest series of voluntary consensus environmental management standards, the ISO 14000, may eventually be adopted uniformly by international corporations, particularly after the United Nations (U.N.) endorsed the standard.⁷⁸ The ISO 14000 information may also be used both internally to improve environmental management and externally to improve vendor contracts and access to international markets.⁷⁹ EPA has sponsored a demonstration project to examine implementation of ISO 14000 standards in the United States.⁸⁰

Beyond assessing NGO standards, EPA has been a constant watchdog over disclosure of both mandatory and voluntary corporate environmental matters.⁸¹ Additionally, it has promoted enhanced corporate environmental disclosure as an essential tool in the development and implementation

of environmental management systems (EMS).⁸² For example, in 1992, EPA created an Environmental Accounting Project to "encourage and motivate business to understand the full spectrum of their environmental costs, and integrate these into decision-making."⁸³

In an effort to promote more accurate corporate environmental disclosure, EPA has devised means to disclose pertinent corporate environmental information to the public. One such means is a website, the Enforcement and Compliance History Online (ECHO).⁸⁴ This site discloses facility-level compliance and enforcement information on nearly 800,000 regulated facilities nationwide.⁸⁵ EPA developed this site as a means of promoting transparency in corporate environmental compliance matters.⁸⁶

Congress has also pushed EPA and other agencies to study environmental disclosure reform. In July 2004, the U.S. Government Accountability Office (GAO) issued a report in response to a U.S. Senate Committee on Environment and Public Works request to review the implementation and effectiveness of the SEC's environmental reporting requirements, nonregulatory programs, and interpretative releases regarding environmental reporting by public corporations.⁸⁷ The GAO recommended that the SEC organize and track key information from its review of company filings to best facilitate analysis, consider creating a publicly accessible database of comment letters and company responses, and improve coordination between itself and EPA on environmental disclosure.⁸⁸

B. The Elusive Materiality Standard

A major controversy concerning corporate environmental disclosures, whether publicly trading corporations are sufficiently accounting for their environmental costs and liabilities, translates into one word: materiality.⁸⁹ In a recent letter to Sen. Jon S. Corzine (D-N.J.) of the Senate Committee on

INSURANCE LAW (1991); TOD I. ZUCKERMAN & MARK C. RASKOFF, ENVIRONMENTAL INSURANCE LITIGATION: LAW AND PRACTICE (1992).

74. See *Asset Managers Want Large U.K. Firms to Publish Reports*, BUS. ENV'T, May 2001, at 7 (reporting that in Great Britain, the Association of British Insurers adopted new guidelines requiring corporations to disclose environmental issues in their annual reports).

75. See ASTM, STANDARD GUIDE FOR DISCLOSURE OF ENVIRONMENTAL LIABILITIES, E-2173-01 (2002), available at <http://www.astm.org> (last visited Mar. 12, 2005) [hereinafter DISCLOSURE GUIDE]; ASTM, STANDARD GUIDE FOR ESTIMATING MONETARY COSTS AND LIABILITIES FOR ENVIRONMENTAL MATTERS, E-2137-01 (2002), available at <http://www.astm.org> (last visited Mar. 12, 2005) [hereinafter COST GUIDE].

76. See discussion *infra* Part IV.

77. For a detailed analysis of ISO standards, see Crusto, *supra* note 7, at 214-15.

78. See Donald A. Carr & William L. Thomas, *Devising a Compliance Strategy Under the ISO 14000 International Environmental Management Standards*, 15 PACE ENVTL. L. REV. 85, 150-65 (1997) (examining the adoption of corporate compliance programs and explaining the possibility that compliance will become mandatory); Craig D. Galli, *ISO 14000 and Environmental Management Systems in a Nutshell*, 9 UTAH B.J. 15, 15 (1996) (describing the origin of ISO 14000 and U.N. endorsement).

79. See Richard N.L. Andrews et al., *ISO 14001: Greening Management Systems*, in GREENER MANUFACTURING AND OPERATIONS 178, 184-88 (J. Sarkis ed., 2001).

80. See CRAIG P. DIAMOND, NSF INT'L, ENVIRONMENTAL MANAGEMENT SYSTEM DEMONSTRATION PROJECT: FINAL REPORT 7 (1996), available at <http://www.p2pays.org/ref/01/00326.pdf> (last visited Mar. 12, 2005).

81. See discussion *supra* notes 57-58.

82. See ENVIRONMENTAL LAW INST. ET AL., DRIVERS, DESIGNS, AND CONSEQUENCES OF ENVIRONMENTAL MANAGEMENT SYSTEMS 3, available at <http://ndems.cas.unc.edu/document/NDEMS2001Compendium.pdf> (last visited Apr. 8, 2005) [hereinafter DRIVERS]; www.eli.org (last visited Mar. 12, 2005) (seeking to evaluate actual effects of implementation of enhanced disclosure as an integral part of an EMS).

83. See U.S. EPA, *Environmental Accounting Project*, at <http://www.epa.gov/opptintr/acctg> (last visited Mar. 12, 2005).

84. U.S. EPA, *Enforcement and Compliance History Online*, at <http://www.epa.gov/echo> (last visited Mar. 12, 2005).

85. See U.S. EPA, *ECHO, About the Site*, at http://www.epa.gov/echo/about_site.html (last visited Mar. 12, 2005).

86. See *id.*; Press Release, U.S. EPA, EPA Seeks Comment on Pilot Online Tool to Access Facilities' Environmental Compliance 1-2 (Nov. 18, 2002), available at www.epa.gov/echo/info/echopressrelease.pdf (last visited Apr. 16, 2005) (noting that ECHO's goal is to provide the public direct access to the environmental compliance record of more than 800,000 regulated facilities nationwide and assist corporations in achieving compliance with their environmental obligations).

87. See U.S. GAO, ENVIRONMENTAL DISCLOSURE: SEC SHOULD EXPLORE WAYS TO IMPROVE TRACKING AND TRANSPARENCY OF INFORMATION, REPORT TO CONGRESSIONAL REQUESTERS (2004) (GAO-04-808).

88. See *id.* at 36 ("Without more compelling evidence that the disclosure of environmental information is inadequate [the] SEC should ensure that it has the information it needs to allocate its oversight resources and determine where additional guidance might be warranted.")

89. See SEC SAB No. 99, 17 C.F.R. §211 (2004) (containing the most recent authoritative literature on materiality).

Environment and Public Works, the GAO summarized the matter accordingly:

A matter is material if there is a substantial likelihood that a reasonable person would consider it important. Environmental risks and liabilities are among the conditions that, if undisclosed, could impair the public's ability to make sound investment decisions. For example, the discovery of extensive hazardous waste contamination [or] impending environmental regulations could affect a company's future financial position⁹⁰

Materiality is a crucial element of the existing reporting requirements enforced by the SEC, a major force in corporate environmental behavior. The SEC oversees and regulates the U.S. federal securities laws, which consist of six separate statutes and corresponding regulations enacted between 1933 and 1940.⁹¹ The SEC has become increasingly concerned about the methods and extent to which corporations are accounting for environmental matters; such concerns were certainly raised by the passage of Sarbanes-Oxley.⁹²

A review of the development of SEC corporate environmental disclosure regulation reveals its commitment to proper accounting and shifting interpretations of materiality.⁹³ The SEC's environmental disclosure rules have evolved over the last 30 years as federal environmental activity increased under CERCLA, which imposes retroactive liability on companies to remediate hazardous waste sites.⁹⁴

In response to the National Environmental Policy Act (NEPA),⁹⁵ which required all governmental agencies to promote environmental protection, corporate environmental disclosure first expanded when the SEC issued Release No. 5170 mandating disclosure of all material effects of environmental regulation compliance.⁹⁶ Faced with increasing pressure to expand environmental requirements later on, the SEC issued interpretive Release No. 16223 clarifying its environmental disclosure requirements.⁹⁷ The release required

companies to disclose all proceedings related to environmental compliance and all material costs associated with environmental compliance for the current year and in future years.⁹⁸ However, as environmental litigation rose, the SEC ruled in 1989 that companies designated as potentially responsible parties (PRPs) under CERCLA did not necessarily have to disclose its designation.⁹⁹

Four years later, the SEC issued Staff Accounting Bulletin No. 92 (SAB 92)¹⁰⁰ in response to SEC Chairman Richard Y. Robert's concern with inadequate disclosure of environmental liabilities.¹⁰¹ SAB 92 clarified accounting principles for estimating environmental losses in corporate disclosures by providing guidance on recognizing contingent losses,¹⁰² measuring the time value of money,¹⁰³ and outlining the scope of environmental reporting both inside and outside financial statements.¹⁰⁴ SAB 92 thus imposed a duty to report about sites with environmental problems on a case-by-case basis in order to ensure full understanding of the accrued and reasonably likely losses relevant to the site.¹⁰⁵

The SEC has continued to refine its environmental disclosure requirements,¹⁰⁶ and some specific provisions of Sarbanes-Oxley could arguably promote environmental disclosure. Sections 101 and 103 create a new Accounting Oversight Board responsible for setting audit quality control for public accountants, thus adding another powerful, government-sponsored source for developing environmental audit principles and practices.¹⁰⁷ Section 108 authorizes the SEC to recognize as generally accepted any accounting principles that are established by a standard-setting body that meets the Act's criteria, thereby opening the door to the SEC's adoption of standards proposed by organizations like

ment agreement with U.S. Steel Corporation. *See* Tracy Soehle, Comment, *SEC Disclosure Requirements for Environmental Liabilities*, 8 TUL. ENVTL. L.J. 527, 531 n.25 (1995) (discussing the release and its history).

90. Letter from John B. Stephenson, Director, U.S. GAO National Resources and the Environment, to Senator Jon S. Corzine (D-N.J.) (Aug. 4, 2004) (GAO-04-1019R); *see also* Karmel, *supra* note 1, at 303-14 (providing a comprehensive analysis of materiality relative to environmental disclosure).

91. Securities Act of 1933, 15 U.S.C. §§77a-77aa (2000); Securities Exchange Act of 1934, 15 U.S.C. §§78a-78mm (2000); Public Utility Holding Company Act of 1935, 15 U.S.C. §§79-79z(6) (2000); Trust Indenture Act of 1939, 15 U.S.C. §§77aaa-77bbb (2000); Investment Company Act of 1940, 15 U.S.C. §§80a(1)-80a(64) (2000); Investment Advisers Act of 1940, 15 U.S.C. §§80b(1)-80b(21) (2000).

92. *See* Schwartz & Mussio, *supra* note 9, at 372-73.

93. For a detailed analysis of the development of corporate environmental disclosure rules in this section, *see* Crusto, *supra* note 7, at 226-34.

94. Pub. L. No. 96-510, 94 Stat. 2767 (1980) (codified as amended at 42 U.S.C. §§9601-9675, ELR STAT. CERCLA §§101-405 (1988)); *see, e.g.,* United States v. Olin Corp., 107 F.3d 1506, 1512-15, 27 ELR 20778 (11th Cir. 1997), *rev'g* 927 F. Supp. 1502, 26 ELR 21303 (S.D. Ala. 1996). CERCLA also imposes joint and several liability on potentially responsible parties (PRPs). United States v. Monsanto Co., 858 F.2d 160, 165, 19 ELR 20085 (4th Cir. 1988), *cert. denied*, 490 U.S. 1106 (1989).

95. 42 U.S.C. §§4321-4370d, §4332, ELR STAT. NEPA §§2-209, §102.

96. *See* Disclosures Pertaining to the Environment and Civil Rights, Securities Act Release No. 5170, Fed. Sec. L. Rep (CCH) ¶ 78150 (July 19, 1971).

97. *See* In re U.S. Steel Corp., Exchange Act Release No. 16223 [1979-1980 Transfer Binder] Fed. Sec. L. Rep. (CCH) ¶ 23507B, at 17203-04 (Sept. 27, 1979). The release was issued as part of a settle-

98. *See* Environmental Disclosure Requirements, Securities Exchange Act Release Nos. 33-6130 and 34-16224, 3 Fed. Sec. L. Rep. (CCH) ¶ 23507B, at 17203-06 (Sept. 27, 1979).

99. *See* Management's Discussions and Analysis of Financial Condition and Results of Operations; Certain Investment Company Disclosures, SEC SAB No. 92, 17 C.F.R. §§211, 231, 241, 271 (2004).

100. *Id.* §211.

101. *See Roberts Predicts Widespread Concern With Disclosing Environmental Liabilities*, 25 SEC. REG. & L. REP. 1620 (Dec. 3, 1993).

102. *See* 17 C.F.R. §211. The SEC staff believed this requirement was needed in order to prevent misrepresentation of the likelihood of insurance policy recoveries. *See* Elizabeth Glass Geltman, *The Pendulum Swings Back: Why the SEC Should Rethink Its Policies on Disclosure of Environmental Liabilities*, 5 VILL. ENVTL. L.J. 323, 364 (1994).

103. *See* Richard Y. Roberts & Kurt R. Hohl, *Environmental Liability Disclosure and Staff Accounting Bulletin No. 92*, SB18 ALI-ABA 505, 518 (Oct. 1996) (noting the importance of discounting future potential liability to the present value of money because the ultimate settlement of environmental liabilities may not occur for many years).

104. *See* 17 C.F.R. §211; Herbert S. Wander, *Developments in Securities Law Disclosure*, 1285 PLI/CORP 659, 878-79 (2002) (noting that financial statements must disclose all material liability, which includes both the total anticipated cost and reasonably possible additional losses).

105. *See* Wander, *supra* note 104, at 879.

106. *See, e.g.,* 17 C.F.R. §229.103(5)(A) (2004) (requiring public corporations to disclose national environmental liabilities).

107. *See* Sarbanes-Oxley Act of 2002, 15 U.S.C.A. §§7211, 7213 (West Supp. 2004).

the ASTM.¹⁰⁸ Perhaps most noteworthy is §302, which requires CEOs and chief financial officers to certify the accuracy and completeness of the financial statements and periodic reports.¹⁰⁹ This requirement, along with the criminal sanctions for reckless certification imposed in §906, heightens all corporate disclosures and potentially arms the public with a great hammer to redress material omissions and misstatements in environmental disclosures.¹¹⁰

Can the increase in personal accountability under Sarbanes-Oxley successfully deter corporate fraud relating to environmental disclosure? Its likely success might be viewed through an examination of previous legislative responses to corporate crimes.¹¹¹ The environmental legislation providing sanctions against individuals seems to have met the purpose of deterring environmental crimes and improving the environment, based on the number of companies taking steps to prevent pollution through environmental audits, the number of government prosecutions against offenders, and the overall improved environment.¹¹²

While Sarbanes-Oxley may hold promise in improving environmental disclosures, federal securities laws in general have done little to promote corporate environmental protection. The materiality standard limits the scope of mandatory disclosure of environmental liabilities, though some corporations recognize that it is in their best interest to disclose some aspects of their environmental performance in voluntary green reports.¹¹³ Since corporate green reports are usually unaudited and frequently misleading,¹¹⁴ the current accuracy of reporting environmental liability is suspect.

IV. ASTM's CMS of Corporate Environmental Disclosure

Because current environmental disclosure is limited to potential environmental liabilities that are material to a company's financial condition, a broader understanding of materiality is critical to foster more corporate environmental reporting. The ASTM has proposed a materiality standard requiring a fuller assessment of the financial impact of environmental liabilities than the existing SEC standard.¹¹⁵ An analysis of this CMS reveals that the ASTM proposal could heighten corporate environmental disclosure beyond current reliance on voluntary green reports.

A. Digested Provisions of ASTM's Environmental Disclosure Proposal

In 2002, ASTM published a controversial benchmark for

corporate environmental disclosure, E2173-01 (*Disclosure Guide*),¹¹⁶ that sought to identify the conditions for disclosure and the content of appropriate environmental disclosure.¹¹⁷ The following is a digest of the important provisions of the *Disclosure Guide*,¹¹⁸ followed by a brief analysis of each provision.

1. Uses

The ASTM standard is designed for voluntary use by an entity providing environmental disclosures that vary in degree according to the scope of its financial statements.¹¹⁹ This provision is problematic, however, in that it only applies to publicly traded corporations, which already comply on a mandatory basis with SEC reporting requirements. To suggest that such corporations enhance their disclosure beyond what is presently required raises many legal and practical issues. For example, mandating more disclosure beyond current SEC requirements risks driving corporations to "opt out" of the SEC reporting scheme by reorganizing into entities not regulated by the SEC.¹²⁰ Such a strategy would defeat the goals of the ASTM standard; instead of generating more environmental disclosure by a large number of corporations, what might result is an exodus of corporations reporting.¹²¹

2. Principles

The standard provides five underlying principles intended to be referred to in resolving ambiguities or disputes in interpretation of the guide: (1) a reporting entity's position with regard to the existence and extent of its environmental liabilities may be made even though there remains uncertainty with regard to the final resolution of factual, technological, regulatory, legislative, and judicial matters; (2) each environmental liability need not be disclosed with the same level of detail; (3) disclosures should be evaluated on the reasonableness of judgment and inquiry at the time they were made, and subsequent disclosures that convey different information should not be construed to indicate inappropriate information in the initial disclosure; (4) an appropriate disclosure does not mean an exhaustive disclosure of the reporting entity's environmental liabilities; the cost of obtaining information or time to gather should be considered; and (5) the reporting entity should evaluate the actual or potential risk to human health and the environment when facing an environmental liability or risk, and that should be a factor in the level of effort devoted to developing the costs and lia-

108. See 15 U.S.C.A. §7218(a) (amending 15 U.S.C.A. §77s (West Supp. 2004)).

109. See *id.* §7241.

110. See 18 U.S.C.A. §1350 (West Supp. 2004).

111. See Kristin Kenny, *The Sarbanes-Oxley Act: Balancing the Rights of Investors and the Rights of Corporate Officers*, 13 TEMP. POL. & CIV. RTS. L. REV. 151, 164-71 (2003).

112. See *id.* at 171.

113. See *supra* notes 59-70 and accompanying text.

114. See discussion *supra* note 33.

115. See DISCLOSURE GUIDE, *supra* note 75, at 1-3; ASTM, *About ASTM International*, at <http://www.astm.com/cgi-bin/SoftCart.exe/ABOUT/aboutASTM.html?L+mystore+xdmz9700+1108428751> (last visited Mar. 12, 2005) (noting that ASTM has over 30,000 technical expert members from over 100 countries who develop technical standards for industries).

116. See DISCLOSURE GUIDE, *supra* note 75; (reproduction authorized per License Agreement with Mitchell F. Crusto).

117. See *id.* at 1 n.2; Karmel, *supra* note 1, at 329.

118. This Article focuses on the DISCLOSURE GUIDE, as it is the source of the major reform of the existing SEC requirements. For a discussion and analysis of the Cost Guide, see Karmel, *supra* note 1, at 329-30.

119. See DISCLOSURE GUIDE, *supra* note 75, at 2.

120. See CHRISTIAN LEUZ ET AL., WHY DO FIRMS GO DARK?: CAUSES AND ECONOMIC CONSEQUENCES OF VOLUNTARY SEC DEREGISTRATIONS 4-7 (Wharton School Working Paper, 2004) (describing the deregistration process to exit the SEC reporting system).

121. See *id.* at 1-4 (concluding that the surge in deregistrations to nearly 200 companies in 2003 was likely motivated by a desire to avoid the demanding Sarbanes-Oxley reporting requirements).

bility estimates associated with the environmental condition or the compliance issue.¹²²

This list of underlying principles seems to undermine the primary goal of the proposed standard—adding greater certainty to information provided to the investing public about a reporting entity's environmental liabilities and risks. It appears that these principles undermine that goal by stating: (1) a disclosure need not be certain; (2) a disclosure need not be material; (3) a disclosure need not be consistent over time; (4) a disclosure need not reflect a complete picture; and (5) a disclosure should accentuate actual or potential risk to human health and the environment regardless of costs. These principles at a minimum seem inconsistent with the goals of transparency and accuracy underlying CMS.

3. Warranted Disclosures

The ASTM standard lists four circumstances that are indicators of environmental liabilities and risks.¹²³ The list includes: (1) the naming of a reporting entity as a PRP or under the Resource Conservation and Recovery Act (RCRA)¹²⁴ on a contaminated site; (2) contractual assumptions of risk or transfer risk agreements, e.g., insurance contracts; (3) commencement of litigation or assertion of a claim against the reporting entity; and (4) the reporting entity's knowledge of an environmental liability.¹²⁵ In addition, the standard sets out 10 specific sources of information that should be reviewed in determining whether disclosure is warranted, including: (1) PRP list; (2) national priorities list (NPL) site list; (3) CERCLA list; (4) state PRP list; (5) environmental lawsuits; (6) leaking underground storage tank (LUST) lists; (7) title searches of 50 years of known owned sites; (8) known payments for environmental claims and cost; (9) environmental claims or demands other than lawsuits; and (10) results of site assessment or investigation reports, environmental audits, and monitoring results.¹²⁶ Most items on this list are already the source of present disclosure checklists. Others are likely to be minor and therefore immaterial. The list only suggests sources of disclosure information and thus does not require a complete audit of all sources listed.

4. Supplemental to Existing Disclosures

The content of the disclosures addressed in the standard "are provided by management and are not meant to replace the disclosure requirements as prescribed or regulated though [generally accepted accounting principles], SEC, or any other agency or regulatory body."¹²⁷ This standard is supplemental and is voluntary. It is curious that ASTM is so convinced of the necessity of this standard, and yet does not seek to make it mandatory and a part of SEC requirements.

122. *See id.*

123. *See id.*

124. 42 U.S.C. §§6901–6992k, ELR STAT. RCRA §§1001-11011 (establishing a federal-state regulatory program for tracking hazardous waste).

125. *See* DISCLOSURE GUIDE, *supra* note 75, at 2.

126. *See id.* at 2-3.

127. *Id.* at 3.

B. CMS

CMS is the hallmark of the ASTM environmental disclosure standard. ASTM primarily proposes that reporting entities voluntarily report their presently nonmaterial environmental liabilities and aggregate them into a new cumulative disclosure standard.¹²⁸ The standard lists disclosures that a reporting entity should make, including: (1) statements on the likelihood of liability from any or all sites, suits, cases, payment requests, notices, demands, and the potential materiality of same; (2) statements regarding PRP sites; (3) estimates of environmental liabilities, the method used to make the estimate, and the amount accrued for environmental liabilities; (4) estimates of anticipated recoveries and estimating method; and (5) discussion of key external and internal environmental factors regarding the timing and amount of the liabilities or recoveries.¹²⁹

CMS differs from existing SEC environmental disclosure requirements in several ways. First, as already discussed, present SEC environmental disclosure requirements are mandatory, whereas CMS are voluntary.¹³⁰ Second, present SEC environmental disclosure requirements are narrower than CMS in that CMS seeks to aggregate or accumulate environmental liabilities¹³¹ contrary to the SEC's rules pertaining to the disclosure of lawsuits requiring that only suits with the same legal and factual issues be aggregated for determining whether they are material and therefore must be disclosed.¹³² If environmental liabilities are aggregated, it is more likely that all these liabilities would approach the important threshold of materiality as a group, thereby triggering the mandatory disclosure requirement.

CMS also differs from how most companies have interpreted SEC S-K Item 303, which requires disclosure of "any known trends or uncertainties that have had or that the registrant reasonably expects will have a material favorable or unfavorable impact on net sales or revenues or income from continuing operations."¹³³ Under this requirement, companies must record a potential liability when it can be reasonably estimated.¹³⁴ The problem is that the two major sources of environmental liability, hazardous waste remediation under Superfund and environmental compliance with present and future regulations, are often difficult to estimate due to the uncertainty of varying compliance standards. Because companies would aggregate environmental liabilities under CMS instead of viewing each liability separately, corporations would be more likely to identify

128. *See id.* ("Disclosure should be made when an entity believes its environmental liability for an individual circumstance or its environmental liability in the aggregate is material. These amounts include . . . damages attributed to the entity's products or processes, cleanup of hazardous waste or substances, reclamation costs, fines, and litigation costs.")

129. *See id.*

130. *See supra* note 119 and accompanying text.

131. *See* DISCLOSURE GUIDE, *supra* note 75, at 3.

132. *See* Legal Proceedings, 17 C.F.R. §229.103, Instruction 2 (2000); Karmel, *supra* note 1, at 329.

133. *See* Management's Discussion and Analysis of Financial Condition and Results of Operations, 17 C.F.R. §229.303(a)(3)(ii) (1994); Karmel, *supra* note 1, at 329-30.

134. *See* DAVID N. RICCHIUTE, AUDITING 689-90 (4th ed. 1995) (analyzing loss contingency auditing).

“material” loss contingencies correctly and avoid misstating their financial picture.¹³⁵

C. The Case for ASTM's CMS of Corporate Environmental Disclosure

There are many reasons why ASTM's CMS would be beneficial as a replacement for often misleading green reports.¹³⁶ Some reasons are legally driven; adopting CMS would encourage uniform environmental management practices essential to an effective environmental compliance program.¹³⁷ Additionally, CMS may lessen a criminal fine or penalty should an environmental violation occur.¹³⁸ On the business side, CMS serves investor interests by disclosing environmental vulnerabilities crucial to investment decisions and responding to investor demands that corporations protect the environment. Ultimately, CMS might provide a competitive business advantage,¹³⁹ and it is ethically the right thing to do.¹⁴⁰

Despite the advantages of promoting more accurate environmental disclosure, some critics might question the wisdom or fairness of adopting CMS. First, critics might claim that adopting CMS is unnecessary because Sarbanes-Oxley will promote more environmental disclosure. In a recent study, the GAO concluded that the current standard for environmental disclosure, one based upon materiality, is sufficient to provide parties the requisite information about a business entity's environmental liabilities.¹⁴¹ Therefore, critics might claim that what is needed is not a different or a higher standard, but a better monitoring and enforcement process, which already exists in the provisions of Sarbanes-Oxley that create an Accounting Oversight Board and impose criminal penalties for faulty certification of financial statements.¹⁴²

This criticism fails to account for the many corporations that continue to issue voluntary green reports, however.¹⁴³ Many of these reports highlight a corporation's environmental pet projects and deemphasize their environmental shortcomings.¹⁴⁴ As a result, some investors dismiss these reports as self-promotional, public relations pieces and are pushing for independent environmental auditing even after the passage of Sarbanes-Oxley.¹⁴⁵ If Sarbanes-Oxley were effective in improving environmental disclosure without changing standards, investors would have more accurate in-

formation than the existing green reports. Since the existing interpretation of materiality has not supplanted green reports with improved environmental reporting, adopting CMS would replace green reports with a more consistent, reliable, and functional disclosure of corporate environmental liabilities beyond existing narrow SEC requirements.

Despite the need for replacing green reports, other critics might reject CMS as an unfair regulatory regime. As Federal Reserve Board Chairman Alan Greenspan warned: “We have to be careful . . . not to look to a significant expansion of regulation as the solution to current problems”¹⁴⁶ Increased disclosure or truthfulness, unfortunately, comes with a possible price: deterring beneficial transactions, increasing the adversarial nature of corporate governance, reducing executives' incentives to increase firm value, and diverting talent to closely held firms.¹⁴⁷

While critics might not find CMS unfair on its face, they might argue that it would have an unjust impact. There are many reasons why an economic entity has environmental liabilities, most of which are due to past history. Much of the current corporate environmental liabilities are the result of the government's desire to clean up past pollution.¹⁴⁸ These critics would claim that environmental laws are an invisible tax on industry by which the federal government wins twice—by both purporting to bring about environmental protection and by doing so without levying a direct tax on industry or on the general public.

There is also an intergenerational equity issue.¹⁴⁹ To force corporations to accelerate their environmental liabilities through CMS could reduce corporate profits today. This would have the greatest negative impact on younger Americans, through job loss and loss of other benefits, as they will pay for the pollution of older Americans. The present, younger generation would suffer most from holding current corporate profits liable for past environmental pollution.

Additional fairness problems might arise from the distinction between the treatment of public companies and closely held corporations. The first is that ASTM proposes that publicly traded corporations voluntarily adopt the enhanced disclosure standard.¹⁵⁰ If some did, it would create an uneven playing field. If, on the other hand, what the Rose Foundation has proposed to the SEC were made mandatory,¹⁵¹ there would be another problem of fairness: closely held, nonpublicly traded companies would have a unique advantage.

Furthermore, critics could attack the passage of environmental legislation without providing funding for implementation as both unfair and dangerous.¹⁵² It is reminiscent of the 1986 Tax Reform Act that brought about the savings and loan debacle and the ensuing massive government bailout of

135. See *supra* notes 131-32 and accompanying text.

136. For a detailed analysis of the general benefits of better corporate environmental practices, see Crusto, *supra* note 7, at 209-10.

137. See FRIEDMAN, *supra* note 16, at 51-115.

138. Federal sentencing guidelines for environmental crimes proposed a reduction in criminal penalty if a company has an environmental compliance program. See Kenneth D. Woodrow, *The Proposed Federal Environmental Sentencing Guidelines: A Model for Corporate Environmental Compliance Programs*, 25 Env't Rep. (BNA) (June 17, 1994).

139. See JOSEPH FIKSEL, *COMPETITIVE ADVANTAGE THROUGH ENVIRONMENTAL EXCELLENCE* 4 (1996).

140. See Edith Brown Weiss, *Our Rights and Obligations to Future Generations for the Environment*, in ENVIRONMENTAL LAW ANTHOLOGY 40-44 (Robert L. Fischman et al. eds., 1996).

141. See U.S. GAO, *supra* note 87, at 18.

142. See *id.*; *supra* notes 9-10, 107-12 and accompanying text.

143. See discussion *supra* note 33.

144. See *id.*

145. See discussion *supra* Part III.A.

146. See Ribstein, *supra* note 10, at 18-19 (citing Greg Ip, *Greenspan Warns Against Too Much Regulation*, WALL ST. J., Mar. 27, 2002, at A3).

147. See *id.*

148. See MILTON RUSSELL ET AL., *HAZARDOUS WASTE REMEDIATION: THE TASK AHEAD* A-3.10 (1991) (finding that hazardous waste cleanup in America would cost between \$500 billion and \$1 trillion from 1990 to 2020).

149. See Weiss, *supra* note 140, at 40-44.

150. See DISCLOSURE GUIDE, *supra* note 75, at 2.

151. See Revised Petition from Jill Ratner, *supra* note 34.

152. See FRIEDMAN, *supra* note 16, at 52-55.

savings and loans.¹⁵³ Critics might argue that it is not right for the government to help create a pollution problem and then hold industry primarily responsible for the problem.¹⁵⁴ Since everyone benefitted from industrial development that created pollution, everyone should share the burden of a national pollution solution, not just corporate America.

These complaints are not unique to CMS—the same charges of intergenerational inequity and disparate treatment of publicly traded corporations could also be lodged against the current regulatory scheme under Sarbanes-Oxley. While this criticism of environmental regulation might have some validity, adopting CMS is a fairer alternative to the existing regulatory regime because it could reduce the risk of future environmental liabilities and the resulting civil and criminal sanctions.

CMS might reduce the threat of loss of corporate status for environmental violations, thus exposing the shareholder to less unfair liability than the existing regime.¹⁵⁵ In the few instances where a corporation has lost corporate status, the shareholder loses limited liability protection and is subject to unlimited personal liability. By pushing for more accurate environmental reporting and management, CMS will help companies avoid the damaging effects of loss of corporate status for environmental violations.

Another meaningful enforcement reason for supporting CMS is the safe harbor provision of the Private Securities Litigation Reform Act (PSLRA) of 1995.¹⁵⁶ This provision shields corporations from securities fraud litigation in connection with statements on anticipated environmental liabilities, even if those statements are subsequently found to have significantly missed their estimate.¹⁵⁷ Under CMS, more comprehensive environmental disclosure could thus shield companies from civil fraud liability.

Even if violations do occur, CMS would reduce unfair government regulation and burdensome liability by improving corporate environmental self-management.¹⁵⁸ CMS may form an essential element of an effective compliance program by providing uniform rules for environmental management, greater corporate accountability, and a reduction of governmental monitoring because of self-regulation. The standard would also likely reduce criminal sanctions for environmental violations since the establishment of an environmental management program like CMS is a mitigating factor for federal environmental crimes under the federal sentencing guidelines.¹⁵⁹

Furthermore, concerns with unfairness to some shareholders must be balanced with the shareholder interests that will be advanced by adopting CMS.¹⁶⁰ Many investor groups advocate more accurate and comprehensive environmental disclosure both to safeguard their investment from unpredicted liabilities and to encourage more environmental protection.¹⁶¹ Because stronger environmental protection may be cost-effective for corporations, fuller disclosure under CMS could benefit corporations from a market-driven perspective.¹⁶² More comprehensive environmental disclosure would reveal inefficient and harmful allocation of resources, so CMS would encourage companies to maximize existing resources. CMS would effectively internalize external influences demanding enhanced disclosure and channel them for positive societal purposes.¹⁶³

The adoption of CMS would also serve shareholder interests by responding to growing international pressure for better environmental protection.¹⁶⁴ In 1991, the ISO established the Strategic Advisory Group for the Environment, which concluded that an EMS, including enhanced disclosure, was a critical element in meeting future environmental needs worldwide.¹⁶⁵ With international pressure increasing for progressive environmental protection in exchange for free trade, CMS would play a critical role in avoiding potential trade barriers by promoting more accurate disclosure.¹⁶⁶

Even if CMS resolves some of the equity concerns of the current regulatory regime, other critics may claim that CMS will be an inadequate response to corporate pollution. These critics would argue that enhanced corporate environmental disclosure alone will not make the environment cleaner or safer.¹⁶⁷ This analysis, however, diminishes the importance of more accurate and comprehensive environmental disclosure. Improved corporate disclosure is essential to the development of EMS, which play a substantial role in improving corporate compliance with environmental regulations.¹⁶⁸ Standardized environmental disclosure will also increase corporate accountability for environmental liabilities beyond the existing self-promotional green reports.¹⁶⁹ Adopting CMS will not eliminate the pollution problem, but it may make an invaluable contribution in fostering better environmental management.

153. See CONGRESSIONAL BUDGET OFFICE, *THE ECONOMIC EFFECTS OF THE SAVINGS AND LOAN CRISIS: A CBO STUDY* 13 (1992).

154. See FRIEDMAN, *supra* note 16, at 35–36; see, e.g., MICHAEL S. GREVE & FRED L. SMITH JR., *ENVIRONMENTAL POLITICS: PUBLIC COSTS, PRIVATE REWARDS* (1992).

155. For a detailed analysis of improved environmental policies reducing the risk of loss of corporate status, see Crusto, *supra* note 7, at 220.

156. 15 U.S.C. §77z-2 (2000).

157. See 15 U.S.C. §77z-2(c); see also Davis & Humes, *supra* note 2, at 24–25; *Stavros v. Exelon Corp.*, 266 F. Supp. 2d 833, 850 (N.D. Ill. 2003) (holding that application of PSLRA safe harbor was appropriate when environmental disclosures regarding site contamination could affect corporate earnings); *Collmer v. U.S. Liquids, Inc.*, 268 F. Supp. 2d 718, 755–56 (S.D. Tex. 2003) (noting that inadequately disclosed environmental liabilities were insufficient to establish securities fraud under the PSLRA).

158. For a detailed analysis of the corporate management benefits from adopting CMS, see Crusto, *supra* note 7, at 210–11.

159. See U.S. SENTENCING COMMISSION, *FEDERAL SENTENCING GUIDELINES* ch. 2, pt. Q, reprinted in 18 U.S.C. §2Q1.1–2Q1.6 (2000).

160. See Crusto, *supra* note 7, at 218–19 (providing a detailed analysis of improved environmental disclosure favoring shareholder interests).

161. See discussion *supra* Part III.A.

162. For a detailed analysis of free market perspectives favoring environmentally friendly policies, see Crusto, *supra* note 7, at 213.

163. The predominant external influences and standards include: ISO 14000, BS 7750, ANSI/ASQC E4, and Community Eco-Management and Audit Scheme.

164. For a detailed analysis of international pressure for environmental management, see Crusto, *supra* note 7, at 220.

165. See *id.*

166. See Mitchell F. Crusto, *All That Glitters Is Not Gold: A Congressional-Driven Global Environmental*, 11 *Geo. INT'L ENVTL. L. REV.* 499, 519 (1999) (proposing a Global Environmental Protection Act).

167. See FRANCES CAIRNCROSS, *COSTING THE EARTH* 291–97 (1991) (disputing critics who question the effectiveness of reporting by claiming that enforced disclosure will have a large effect on corporate environmental policy).

168. See *id.* at 297; *DRIVERS*, *supra* note 82, at 3–25.

169. See discussion *supra* note 33.

V. Conclusion: ASTM's CMS Over Voluntary Green Reports

While Sarbanes-Oxley does not expressly address corporate environmental disclosure, large economic entities, including publicly traded corporations and the federal government, should adopt the ASTM's CMS over voluntarily published green reports. If CMS is voluntarily adopted, it would be another important means of promoting investor confidence and facilitating a full evaluation of the true cost of environmental compliance and remediation. In addition to private enterprises, CMS would also be a useful tool for the federal government to evaluate and manage its enormous environmental liabilities.

As a note of caution, the SEC should not rush to adopt CMS as a mandatory requirement. To do so might have un-

expected consequences, such as the possibility that some of the present reporting corporations will elect to reorganize into nonreporting entities, including moving their stock to the less regulated over-the-counter markets or privatizing.

Nevertheless, utilizing a cumulative assessment of the financial impact of all environmental liabilities for materiality, instead of the present standard of materiality for each proceeding or liability, should promote greater environmental protection following the maxim: what gets counted gets managed. It would add to the spirit of transparency following the passage of Sarbanes-Oxley, and it would promote investor confidence in the financial markets. Whether it will result in a cleaner, safer, and healthier environment is left to be seen, but adopting CMS could be a key step toward better corporate environmental management.