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BEFORE THE

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COMMITTEE ON BANKING, HOUSING AND URBAN AFFAIRS

U.S. SENATE

REGARDING

CLIMATE DISCLOSURE: MEASURING FINANCIAL RISKS AND OPPORTUNITIES

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Good afternoon Chairman Reed, Ranking Member Allard, and members of the Committee. My name is Jeff Smith, and I am the partner-in-charge of the environmental law practice at Cravath, Swaine & Moore LLP. I am also the past Chairman of the Committee on Environmental Disclosure of the American Bar Association's Section on Environment, Energy and Resources. Although much of the experience I have gleaned, and that I hope will be of use to this Committee, comes from those affiliations, I am speaking this afternoon as an individual lawyer who has approximately 27 years of experience with environmental issues in business transactions, and not on behalf of my firm or any of its clients, or on behalf of the ABA. I am honored by the invitation to appear today to present my views on climate change disclosure, and I commend the Subcommittee for holding a timely hearing on this important subject.

I. Introduction

The potential environmental, social and political impacts of global climate change are, in many respects, unprecedented. It is already clear that adaptation to climate change will have major implications for the world-wide economy. In addition, the consequences of any sudden, severe events or dramatic shifts in world ecosystems could create economic upheaval, particularly in markets in which risk is concentrated.

Macroeconomic surveys using sophisticated modeling techniques, such as the recent University of Maryland study on the Hidden Costs of Climate Change[1] and the Stern Review[2], have forecast significant economic costs resulting from climate change in the United States and worldwide. Government-sponsored surveys on climate change science by such organizations as the U.S. Climate Change Science Program now predict with certainty that there will be long-term physical changes to the environment with potentially far-reaching consequences. The recent InterAcademy Council report[3], which develops a framework for a transition to sustainable energy, is an example of the rapidly developing thought on how human economic behavior might adapt.

On the regulatory front, the Kyoto Protocol to the United Nations Framework Convention on Climate Change, established in 1997 and entered into force in 2005, sets binding greenhouse gas (GHG) emission limits for the 175 developed countries that signed it. The European Union Trading Scheme (EU/ETS) has established the world's largest GHG emission trading system, with over 11,000 participating industrial entities.[4]

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[1] *See* Matthias Ruth et al., *The US Economic Impacts of Climate Change and the Costs of Inaction*, A Review and Assessment by the Center for Integrative Environmental Research (CIER) at the University of Maryland (October 2007).

[2] Nicholas Stern, *Stern Review on the Economics of Climate Change* (Cambridge University Press, 2006).

[3] InterAcademy Council, *Lighting the Way: Toward a Sustainable Energy Future* (October 2007), *available at* http://www.interacademycouncil.net/?id=12039.

[4] Donald M. Goldberg and Angela Delfino, *The Impact of the Kyoto Protocol on U.S. Business*, *in* GLOBAL CLIMATE CHANGE AND U.S. LAW 104 (Michael B. Gerrard ed., 2007).

In the U.S., regional GHG regulatory initiatives involving multiple states[5] have emerged in the absence of federal legislation controlling GHG emissions.[6] Even without federal legislation, much of the U.S. economy seems likely to be affected by a GHG emission regulatory regime. Profound and long-lasting consequences for the economy seem almost certain, although careful and timely planning can spread the costs over affected sectors and over time.

II. Disclosure Background and Recent Developments

In many respects, the response of investors and the marketplace to these developments and to the prospects of further profound changes in the regulatory and economic landscapes has been both predictable and understandable: Give us information so that we can assess and price the risks and opportunities.

As a result, in the past five years alone, there have been over 50 white papers on climate change-related topics published by major investment banks, addressing issues such as the implications of climate change for investors and new business opportunities arising from the physical effects of rising temperatures.[7] More than a dozen studies

[5] Eleanor Stein, *Regional Initiatives to Reduce Greenhouse Gas Emissions*, *in* GLOBAL CLIMATE CHANGE AND U.S. LAW 315-316 (Michael B. Gerrard ed., 2007).

[6] These initiatives include the Regional Greenhouse Gas Initiative, the New England Governors/Eastern Canadian Premiers' Climate Action Plan, Powering the Plains, the Western Governors' Association Clean and Diversified Energy Initiative, the West Coast Governors Global Warming Initiative (West Coast Governors Global Warming Initiative does not include Canada/U.S. compacts), and the Southwest Climate Change Initiative.

[7] *See, e.g.*, John Llewellyn, Lehman Brothers, *The Business of Climate Change:* Challenges and Opportunities (February 2007); Edward M. Kerschner & Michael

commissioned by various non-governmental organizations (NGOs) over this same period have examined the limitations of business reporting under existing rules. Other NGO reports have compared disclosure of climate risk in SEC filings under both the Securities Act of 1933 (the '33 Act)[8] and the Securities Exchange Act of 1934 (the '34 Act)[9], including recent industry-specific analyses for the insurance and petrochemical industries, as well as energy-related businesses likely to be most immediately affected by climate change.

Voluntary climate change disclosure also has increased dramatically in volume, depth, detail and sophistication over the past five years. Organizations such as the Global Reporting Initiative and Carbon Disclosure Project have issued guidelines for corporations seeking to disclose climate change-related information voluntarily.[10] A coalition of investors, including Ceres, has issued a Global Framework for Climate Risk Disclosure.[11] It is not an exaggeration to say that the climate change disclosure market

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Geraghty, Citigroup, *Climate Consequences: Investment Implications of a Changing Climate* (January 19, 2007); Mark Fulton, Deutshe Bank, *Investing in Climate Change: An Asset Management Perspective* (October 2007).

[8] 15 U.S.C. § 77a et seq.

[9] 15 U.S.C. § 78a et seq.

[10] *See, e.g.,* Global Reporting Initiative, *Sustainability Reporting Guidelines*, 2006 (describing G3 reporting guidelines), *available at* http://www.globalreporting.org/ReportingFramework/G3Guidelines/; Carbon Disclosure Project, *CDP5 Letter and Questionnaire,* February 1, 2007, *available at* http://www.cdproject.net/questionnaire.asp.

[11] *See Global Framework for Climate Risk Disclosure, A statement of investor expectations for comprehensive corporate disclosure*, October 2006, *available at* http://www.ceres.org/pub/docs/Framework.pdf.

has largely been privatized, and that most of the best and most thorough reporting on climate change to date has been done outside the mandates of '33 Act and '34 Act disclosure, and through frameworks that the SEC did not participate in creating.

Many aspects of these developments are positive, and have resulted in a significant transfer of information to the marketplace. It would be a mistake, however, to believe that this voluntary activity, no matter how sophisticated and well-intentioned, could become a permanent substitute for mandatory reporting. Because there is no agreed-upon format or objective for these reports, notwithstanding the effort with which they are compiled and verified, they do not create ready basis for comparison among and between themselves, or an accessible measurement against a recognized benchmark vetted through well-recognized channels under well-established principles.

To date, there has been no formal, specific clarification from the SEC as to how traditional disclosure standards should be applied to climate change. This has created two issues: (1) a wide variation in the depth, quality and format of formal SEC reporting on client change; and (2) and an unprecedented divergence between the scope and quality of mandatory reports on the one hand and voluntary reports on the other.

Some investor groups have framed the marketplace's demand for climate change information as a dilemma pitting big investors against little investors, implying that information is being hidden from those without the resources or acumen to find it. I disagree. Most big investors, such as mutual funds and public pension funds, are an

agglomeration of little investors, and their trustees are operating at the highest levels of market sophistication and under well-established fiduciary restraints. The real issues are two-fold: (1) the integrity and scope of climate change information in the marketplace as a whole; and (2) how, whether and when that flow of information is going to be standardized, modulated and/or regulated in a manner that allows an assessment of each market participant for which the issue is material and meaningful comparisons among all competing market participants.

III. Environmental Disclosure

There are well-established and useful regulations in place under long-standing SEC protocols for reports to investors required by the '33 Act and the '34 Act. Over the past 30 years, it has been demonstrated that these requirements are broad and adaptable enough to have mandated significant disclosure in response to a wide array of environmental challenges and regulatory developments, ranging from the passage of Superfund in 1980, to the extensive revisions of the Clean Air Act in 1990, to the EPA's complex multi-media regulation of specific industries, such as the co-called "cluster rules" for the pulp and paper sector in the late 1990s.

We have arrived at a time, however, in which the application of these requirements to climate change is uncertain in light of the unprecedented scope and speed of change, and the market's appetite for information. SEC attention to climate change disclosure would accomplish three significant objectives:

(1) To reassert the SEC's preeminence in the information marketplace and reestablish its gatekeeper role for climate disclosure.

(2) To allow the information marketplace to develop a normative body of disclosure in controlled circumstances.

(3) To establish a set of disclosure expectations that will meet what will doubtlessly continue to be both rapid and profound changes in market needs.

There are pitfalls to be avoided on both sides. On the one hand, the comparative paucity of some aspects of '33 Act and '34 Act disclosure to date is increasingly disquieting to the marketplace, which is hearing from multiple sources that major changes are inevitable. On the other hand, there are many elements of climate change that remain unknown and fundamentally unknowable. Prematurely releasing information labeled as data and compelling disclosure that is little more than informed speculation merely to fill a perceived void in the marketplace or to placate an investor group will be counterproductive to the market in general, to individual companies, and ultimately to investors.

Against the backdrop of this dynamic activity, the remaining sections set forth an overview of existing environmental disclosure requirements; several applications of these requirements to the risks and opportunities posed by climate change; and two examples of how the SEC has addressed similar marketplace stresses in the past.

IV. The Mandate of Regulation S-K[12]

The specific framework of current disclosure requirements can be summarized briefly.

[12] 17 C.F.R Part 229 (2005).

Item 101—Costs of Compliance

Under Item 101 of Regulation S-K, a company must disclose any material effects that costs of environmental compliance may have on its earnings, capital expenditures and competitive position.[13] Item 101(c)(xii) requires the disclosure of contingent effects, as well as those which are known or certain, including material expenditures for environmental control facilities for the remainder of the current reporting year and the succeeding year, as well as for any further periods as the registrant deems material.[14] It is noteworthy that this requirement compels the issuer to make whatever disclosure about the future is necessary to make the disclosure about current plans not misleading. For industries such as coal-burning utilities, cement or aluminum smelters, which might have material capital obligations under some, but not all, pending climate change regulatory scenarios, Item 101 requires ongoing attention both to technical and legislative developments and the disclosure of material contingent capital plans. Common sense and self interest also dictate that a public company not surprise the marketplace with news of a material capital expenditure that had, in fact, been developed as a contingency plan for several years. Note that the filter of materiality appears throughout these requirements. This is an equally well-established, albeit flexible, benchmark, which will be discussed briefly in the following section. It screens out the trivial and focuses investor attention on

[13] *See* Securities Act Release No. 5569, Exchange Act Release No. 11236, 40 Fed. Reg. 7013 (Feb. 18, 1975); *see also* SEC Staff Accounting Bulletin Release No. 92, 58 Fed. Reg. 32,843, 32,843 (June 14, 1993).

[14] *See* 17 C.F.R. §229.101 (2005).

important issues. It also focuses management's attention on matters that will really make a difference.

The SEC has made it clear that "to the extent any foreign environmental provisions may have a material impact upon the company's financial condition or business, such matters should be disclosed."[15] Thus, a multinational company with facilities in both the U.S. and Europe is currently required to determine whether disclosure is required under Item 101 concerning capital expenditures undertaken as an alternative to purchasing credits in the EU/ETS. If regional rather than national regulatory regimes remain the dominant source of GHG emission reduction mandates in the U.S., a reporting company will likely reach differing conclusions concerning the economics of such capital expenditure on a region-by-region basis within the U. S.

Item 103—Disclosure of Legal Proceedings

Under Item 103, a company must disclose material pending legal proceedings to which it is a party or to which its property is subject, including proceedings "known to be contemplated" by governmental authorities.[16] An administrative or judicial proceeding arising under environmental law must be disclosed if (A) it is material to a company's business or financial condition; (B) it includes a claim for damages or costs in excess of 10 percent of current consolidated assets; or (C) a governmental authority is a party to the proceeding, or is known to be contemplating such proceedings, unless any sanctions are

[15] 1973 WL 11973 (S.E.C. No-Action Letter) (interpreting precursor to Item 101(c)(xii)).

[16] 17 C.F.R. § 229.103

reasonably expected to be less than $100,000[17]. While this amount is clearly not material for many reporting companies, this threshold reflects the SEC's long-held view that environmental performance is significant enough to investors to merit close scrutiny.[18]

Although Item 103 does not specifically require a company to predict the effects of litigation, it has become increasingly common to disclose whether management believes that the results of environmental litigation will be material. In addition, aggregation of sanctions is required for purposes of Instructions 5 (A) and (B) in proceedings "which present in large degree the same issues".[19]

The climate change litigation docket is increasingly active, and the vast majority of cases are of relatively recent vintage. Most of the significant pending cases can be grouped into one of four categories. The first category is represented by Massachusetts v. EPA,[20] and consists of governmental (or other) plaintiffs suing to compel EPA (or other regulatory agencies) to act. In the second group of cases, typified by a matter in the U. S. District of Court for the Eastern District of California, Central Valley Chrysler-Jeep v. Witherspoon,[21] plaintiffs are challenging regulations that have been adapted or

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[17] 17 C.F.R. § 229.103 (Instruction No. 5)

[18] *See* Cynthia A. Williams, *The Securities and Exchange Commission and Corporate Social Transparency*, 112 Harv. L.Rev. 1246 (1999).

[19] 17 C.F.R. § 229.103 (Instruction No. 5)

[20] *Massachusetts v. EPA*, 549 U.S. 1438 (2007)

[21] *Central Valley Chrysler-Jeep Inc. v. Witherspoon, No. CVF-04-6663 (E.D. Cal 2005)*; In Witherspoon, an association of car dealerships, acting in concert with the automobile industry, are challenging the so-called Pavley Amendment, which requires the California Air Resources Board to regulate GHG emissions from motor vehicles, on

authorized.[22] The second group of cases also involves governmental plaintiffs seeking relief other than action by a regulator. The defendants in these cases are private entities, typically industry representatives of major GHG emitting businesses, such as power generators or automobile manufactures. Typical of this group of cases is Connecticut v. American Electric Power Company (AEP),[23] which was dismissed by the District Court of the Southern District of New York in September 2006 and is currently on appeal to Second Circuit Court of Appeals. The theory of liability is public nuisance, and plaintiffs are seeking a commitment by defendants to reduce their GHG emissions by a certain percentage over a stated period of time. In a similar vein, but seeking different relief, is California v. General Motors[24] in which, like the plaintiffs in Connecticut v. AEP, the Attorney General of California (on behalf of the people of California), attempted to use a theory of public nuisance against one of several sources of GHG emissions. Unlike the Connecticut v. AEP case, the California Attorney General sought monetary compensation for the costs of the harms already caused and yet to be caused by global warming allegedly attributable to the defendant's products – tailpipe GHG emissions.[25]

In the third category of cases, private plaintiffs, usually advocacy groups, are suing either private defendants or governmental agencies to compel them to take climate

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the grounds that any such regulation is preempted by the comprehensive federal legislative and regulatory scheme enacted under the Clean Air Act.

[22] 2006 WL 2734359 (E.D. Cal. 2006).

[23] 406 F. Supp. 2d 265 (S.D. N.Y. 2005).

[24] No. C 06-5755 (N.D. Cal. 2006).

[25] The case was dismissed by the District Court on September 15, 2007.

change into account when they are considering environmental permitting decisions. For example, in Northwest Environmental Defense Center v. Owens Corning,[26] an environmental advocacy group was granted standing by the District Court in Oregon in part on the basis of harms its members allegedly would suffer from global warming as the result of defendant's failure to obtain a so-called prevention of significant deterioration (PSD) permit under the CAA for alterations to its plant. Finally, there is a fourth group of cases, spurred in part by Hurricane Katrina, which pit private plaintiffs against a widening circle of private defendants and, by implication, their insurance carriers. In Comer v. Murphy Oil,[27] for example, private citizens who suffered damage to their homes sued a group of oil companies for their contribution to global warming and thus, by extension, the intensity of Hurricane Katrina. These cases look like traditional mass toxic tort suits, but their outcomes will turn on issues of proof inextricably linked to the science of climate change.[28] To date, none of these matters has sought relief that involve payments that have traditionally been classified as "sanctions" under SEC guidance.[29]

Each of these types of proceedings has obvious implications for other significant GHG emitters should they, or similar causes of action, prove successful. These cases

[26] 434 F. Supp 957 (D. Or. 2006).

[27] Comer v. Murphy Oil, 2006 WL 1066645 (S.D. Miss. 2006).

[28] Comer was dismissed in September 2007 for failure to state a claim on which relief could be granted.

[29] The SEC has explicitly stated that cleanup costs under CERCLA are not "sanctions" for the purposes of Instruction 5(C) to Item 103. Thomas A. Cole, SEC No-Action Letter (Jan. 17, 1989), [1989 Transfer Binder] Fed. Sec. L. Rep. (CCH) para. 78,962, at 78,815.

also may have indirect effects on non-defendant companies, both in terms of costs and disclosure obligations, as the threat of legal or regulatory consequences becomes real or more foreseeable. It is widely recognized that precedent established by other parties may be controlling on an issuer. The scope of Item 103 is comparatively clear. As a result, disclosure of climate change litigation, both by the parties involved and by those potentially affected by the outcomes, has been the most robust and detailed of all SEC-mandated climate disclosure to date.[30]

[30] *See*, *e.g.*, American Electric Power Co., Inc. Annual Report, Form 10-K, for the Fiscal Year ended December 31, 2006 ("In July 2004 attorneys general of eight states and others sued [various] utilities alleging that carbon dioxide emissions from power generating facilities constitute a public nuisance under federal common law. The suits were dismissed by the trial court, and plaintiffs have appealed the dismissal. While we believe the claims are without merit, the costs associated with reducing carbon dioxide emissions could harm our business and our results of operations and financial position."); and Southern Company Annual Report, Form 10-K, for the Fiscal Year ended December 31, 2006 ("In July 2004, attorneys general from eight states, each outside of [our] service territory, and the corporation counsel for New York City filed a complaint in the U.S. District Court for the Southern District of New York. A nearly identical complaint was filed by three environmental groups in the same court. The complaints allege that the companies' emissions of carbon dioxide, a greenhouse gas, contribute to global warming, which the plaintiffs assert is a public nuisance. Under common law public and private nuisance theories, the plaintiffs seek a judicial order (1) holding each defendant jointly and severally liable for creating, contributing to, and/or maintaining global warming and (2) requiring each of the defendants to cap its emissions of carbon dioxide and then reduce those emissions by a specified percentage each year for at least a decade. Plaintiffs have not, however, requested that damages be awarded in connection with their claims. [We] believe these claims are without merit and note that the complaint cites no statutory or regulatory basis for the claims. In September 2005, the U.S. District Court for the Southern District of New York granted …the defendants' motion to dismiss these cases. The plaintiffs filed an appeal to the U.S. Court of Appeals for the Second Circuit on October 19, 2005. The ultimate outcome of these matters cannot be determined at this time.")

Item 303—Management Discussion and Analysis (MD&A)

To supplement the mandates of Items 101 and 103, the SEC casts a broader, more subjective net, through its requirements for MD&A disclosure under Item 303.[31] The SEC views MD&A disclosure as an opportunity to give investors "a look at the company through the eyes of management."[32] In practice, this exercise generally requires the company to disclose "currently known trends, events, and uncertainties that are reasonably expected to have material effects."[33]

Item 303 has been interpreted to require two distinct inquiries. First, management must determine whether an uncertainty is reasonably likely to occur.[34] Unless management can conclude that the event is not reasonably likely to occur, management must assume that it will occur.[35] Second, the trend or event must be disclosed, unless management can determine that its occurrence is not reasonably likely to have a material effect on the company.[36] Disclosure is optional when management is merely anticipating

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[31] 17 C.F.R. § 229.303 (2005).

[32] Richard Y. Roberts, *Update on Environmental Disclosure*, Address at the Colorado Bar Ass'n (Sept. 28, 1991).

[33] Concept Release on Management's Discussion and Analysis of Financial Condition and Operations, Exch. Act Release No. 6211, 52 Fed. Reg. 13,715, 13,717 (Apr. 26, 1987).

[34] Sec. Act Release No. 6835, 54 Fed. Reg. 22, 427, 22,430 (May 4, 1989).

[35] *Id.*

[36] *See* Management Discussion and Analysis of Financial Condition and Results of Operations: Certain Investment Company Disclosures, Securities Act Release No. 6835, 54 Fed. Reg. 22,427, at 22,430 (May 24, 1989).

"a future trend or event, or anticipating a less predictable impact of a known trend, event or uncertainty."[37]

To attempt to capture this balance, Item 303 requires the disclosure of "known uncertainties,"[38] that is, knowable possibilities that are less than trends but that could result in material consequences. The SEC has also required disclosure of trends that are "currently known" and "reasonably expected to have material effects."[39] The predictability of the event at issue has as much significance for disclosure purposes as the size of its potential consequences.

The instructions to Item 303 state that the information provided in the MD&A "need only include that which is available to the registrant without undue effort or expense and which does not clearly appear in the registrant's financial statements."[40] The SEC requires registrants to state "the amount, or describe the nature or extent of the potential liabilities" in their disclosure [41] and that, even when an exact calculation of

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[37] *See Id.* The SEC has expressly rejected as "inapposite to Item 303 disclosure" the probability/magnitude balancing test for disclosure of contingent events set forth by the Supreme Court in Basic v. Levinson. *See* Sec. Act Release No. 6835, 54 Fed. Reg. 22,427, at 22,430 n.27. In other words, it is not proper or necessary to disclose the remote possibility of a catastrophic event.

[38] 17 C.F.R. § 229.303(a)(1) (2005).

[39] Sec. Act Release No. 6711, Fed. Sec. L. Rep. (CCH) ¶ 84,118, at 88,624 (Apr. 20, 1987).

[40] 17 C.F.R. § 229.303 (2005) (Instruction 2); s*ee also* Sec. Act Release No. 6835, 54 Fed. Reg. 22,427, at 22,430 (stating that MD&A requires quantification of potential liability "to the extent reasonably practicable").

[41] *In re* Occidental Petroleum, 57 S.E.C. Docket 330, 571 (July 2, 1980) (discussing precursor to Item 303).

potential liability is not possible, the effects of such liability should be "quantified to the extent reasonably practicable."[42]

For disclosure purposes, climate change is now ripening from being an "uncertainty" or a "trend" to being an "event." Five years ago, a fair reading of Item 303 might have justified silence on climate change on the part of most public companies, for several reasons. The scientific view, while rapidly coalescing, was far from certain and was being publicly dismissed as speculative.[43] The Kyoto Protocol had not been ratified. There was no established GHG emission trading marketplace. As a consequence, the effects on production, demand for products, risks to physical assets, requirements for capital expenditure, and other traditional business metrics were unquantifiable, irrespective of the level of effort on the part of management. In fact, any disclosure involving the "math" of climate change arguably would have been misleading, in that it would have created an illusion of precision.

Today, while there are still significant uncertainties regarding future federal regulation in the U.S., a reasonably broad-based consensus for federal action, involving either a cap-and-trade program or a carbon tax, is forming. Several GHG emission trading marketplaces have been established. There are numerous developing regional and local regulatory mandates for GHG emission reductions. Several individual states

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[42] Sec. Act Release No. 6835, 54 Fed. Reg. 22,427, 22,430 (May 24, 1989).

[43] *See* James Glanz, *The Nation: Blue Sky; Sure, It's Rocket Science, but Who Needs Scientists?*, N.Y. TIMES, June 7, 2001, at D1 (quoting various administration sources as "dismissive" of climate change science).

already have proposed implementing regulations for regional GHG emission compacts.[44] The Supreme Court has determined that the EPA has the authority to regulate tailpipe carbon dioxide emissions as a pollutant under the Clean Air Act. California is seeking a federal waiver which would allow it to regulate tailpipe GHG emissions. Thirteen other states have adopted California's regulations.

Silence on climate change by any publicly-traded company for which stringent regulation or unfavorable economic trade-offs could translate into material economic or strategic consequences is no longer supportable under Item 303. At the same time, however, many reporting companies are still far enough removed from any of the immediate consequences of climate change justifiably to remain silent, because the forces that will shape any definable, material economic effects of GHG emissions on their customers are too still abstract or uncertain, and their application to the issuer's business is unclear. Compelling such companies to disclose would serve no useful purpose in the market and could undermine the integrity of mandated data and material market developments.

[44] For example, on October 24, 2007, New York Governor Eliot Spitzer announced regulations to cut GHG emissions from power plants and establish a first dollar emission credit auction as part of the RGGI. See Editorial, Listen to the States, N.Y. TIMES (October 27, 2007).

For a summary of the way these elements of Reg S-K might work ideally in the climate change arena, a snapshot comparison with the four basic requirements of the Global Framework for Climate Risk Disclosure[45] is instructive.

1. Emissions disclosure. Except for a few GHG intensive industries, a company's actual "carbon footprint" would be immaterial under Reg S-K. Large volumes of emissions data are highly unlikely to be useful to investors or markets.

2. Assessment of Physical Risks of Climate Change. Again, except for a company extraordinarily ill-positioned - for example, with a material gas pipeline subject to proven and ongoing subsidence of the Arctic permafrost - this disclosure would either be immaterial or premature, or both.

3. Strategic Analysis of Climate Risk. For an increasing number of companies, the material trends and uncertainties examined in this analysis should be part of MD&A disclosure under Item 303 of Reg S-K. In addition, as described in Section VII below, it also may be material to discuss the degree of preparedness of companies in a sector that may become highly regulated.

4. Analysis of Regulatory Risks. This is currently mainstream disclosure required under Item 101 and 103.

[45] *See Global Framework for Climate Risk Disclosure, A statement of investor expectations for comprehensive corporate disclosure*, October 2006, *available at* http://www.ceres.org/pub/docs/Framework.pdf.

It is worthy of note that the crucial concept of materiality appears throughout Regulation S-K and is, of course, the cornerstone of Section 10b-5 of the '33 Act, which prohibits material misstatements or omissions of material information by public companies.[46] The Supreme Court has held that a matter is material if a reasonable investor would view it as significantly altering the "total mix" of information made available to an investor.[47] SEC Staff Accounting Bulletin No. 99 states that "a matter is 'material' if there is a substantial likelihood that a reasonable person would consider it important." There is no bright line test of materiality. The SEC has warned against numerical formulas or rule-of-thumb percentages.[48] Both qualitative and quantitative factors must be used.

V. Accounting Standards

Regulation S-K provides the parameters of what is to be included in financial statements, but does not dictate how specific items are to be accounted for and disclosed.[49] The standards governing such financial matters are established by the accounting profession. The Financial Account Standards Board's (FASB) principles governing the disclosure of contingent risk, FAS No. 5, "Accounting for

[46] 17 C.F.R 240.10b-5

[47] *TSC Industries Inc. v. Northway, Inc.* 426 U.S. 438, 448 (1976).

[48] Securities of Exchange Commission, Materiality, SEC Staff Accounting Bulletin Release No. 99 (August 12, 1999).

[49] Mark A. Stach, *Disclosing Environmental Liabilities Under Securities Law* 7-2 (1997).

Contingencies,"[50] is the most frequently invoked, even though it addresses risks far broader than environmental ones, because most environmental issues pass through a stage in which the financial outcome is contingent on a number of technical and legal factors. FAS 5 mandates that a loss contingency be accrued by a charge to income, and that the nature of the contingency be described in a footnote to the financial statement, if it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated.[51] If a loss contingency is only reasonably possible, or if the loss is probable but the amount cannot be reasonably estimated, then the company is not required to accrue for it, but its nature must be disclosed in a footnote.[52]

In the past, the SEC has used a variety of techniques and guidance to clarify specific expectations under the broad construct of existing financial disclosure principles. For example, Staff Accounting Bulletin No. 92 (SAB 92), clarified certain accounting and disclosure issues for contingent environmental liabilities.[53] Broadly speaking, SAB 92 was intended to "elicit more meaningful information concerning environmental

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[50] Financial Accounting Standards Board, *Statement of Financial Accounting Standards No. 5, Accounting for Loss Contingencies* (March 1975).

[51] Id. at § 8.

[52] Id. at § 10. *See also* Jonathan S. Klavens, *Environmental Disclosure Under SEC and Accounting Requirements: Basic Requirements, Pitfalls, and Practical Tips, available at* http://www.abanet.org/environ/committees/counsel/newsletter/aug00/kla.html (August 2000).

[53] SEC Release Staff Accounting Bulletin Release No. 92, 58 Fed. Reg. 32,843, 32,843 (June 14, 1993); Richard Y. Roberts, SEC Commissioner, *SAB 92 and the SEC's Environmental Liability Disclosure Regulatory Approach*, address delivered at the University of Maryland School of Law, at 3 (April 8, 1994).

matters in filings" than had been made available to the marketplace.[54] The measurement of a liability must be based on "currently available facts, existing technology and presently enacted laws and regulations and should take into consideration the likely effects of inflation and other societal and economic factors."[55] Although "significant uncertainties" may exist, SAB 92 made it clear that "management may not delay recognition of a contingent liability until only a single amount can be reasonably estimated."[56] When that amount falls within a range of reasonable likely outcomes, the registrant should recognize the minimum amount of the range.[57]

At a practical level, however, many complexities arise in determining whether an event is probable and the liability is estimable. For example, under the EU/ETS, there is no question of probability of emission regulation, and the price of a ton of GHG emissions has been established by the market. As a result, we are starting to see financial disclosure which quantifies GHG emission risk in these markets.[58] In the U.S., however,

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[54] Richard Y. Roberts, SEC Commissioner, *SAB 92 and the SEC's Environmental Liability Disclosure Regulatory Approach*, address delivered at the University of Maryland School of Law, at 5 (April 8, 1994).

[55] SEC Staff Accounting Bulletin Release No. 92, 58 Fed. Reg. 32,843, 32,843 (June 14, 1993), at 32844.

[56] *Id.* at 32844.

[57] *Id*. at 32845.

[58] See Sappi LTD Annual Report, Form 20-F, for the Fiscal Year Ended December 31, 2005, at 38:

> The countries within which we operate in Europe are all signatories of the Kyoto Protocol and we have developed a GHG strategy in line with this protocol. Our European mills have been set CO2 emission limits of the allocation period 2005 to 2007. Based upon in depth analysis of our mill production by a Sappi Fine Paper

neither the regulatory regime nor the cost of emission or compliance has been established, so there is currently no financial statement disclosure driven by climate change. Although that absence is increasingly unsettling to the markets, it is unavoidable in the short term.

Furthermore, whether a contingent loss, such as a need to install pollution control equipment at substantial cost in response to pending regulatory requirements, is probable and estimable, will vary by industry, company, plant and jurisdiction. How the SEC's requirements are to be applied in each case is a question to which the answers will continue to change rapidly, particularly in industrial sectors with significant GHG emission profiles. The inherent limitations of determining probability and estimability, however, coupled with the complexity of the questions surrounding climate change, have already resulted in a wide variety of disclosure decisions. In most instances, this variety is justified, and should (and will) continue.

VI. The Marketplace is Demanding Information

Against the backdrop of these long-standing disclosure principles, the marketplace is looking for information and data to help it solve a four dimensional equation in which there are multiple variables. This uncertainty has created a level of

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Europe task force it is unlikely that Sappi will exceed their CO2 emission limits. Consequently in July 2005 Sappi Fine Paper Europe sold 90,000 surplus CO2 credits to the value of $2.5 million (euro 2.0 million) on the European Climate Exchange.

investor involvement, interest and insistence which is unprecedented in my experience. The passage of Superfund is the second place event, but it is a distant second.

Among the questions for which the marketplace is seeking analysis and answers are the following:

What will be the outcome of federal legislative initiatives and the regulations that the Supreme Court ruled that EPA has the authority to issue, and what will the relationship of these outcomes be to local, state and regional legislative efforts?

The current regulatory landscape is balkanized, yet very active, running the gamut from compulsory programs, to strictly voluntary information disclosure, to financial incentives, to information sharing, to cap-and-trade initiatives.[59] This has multiplied the usual uncertainties that arise in a time of major regulatory shifts.

To what extent will the courts act to compel federal regulation, ratify state initiatives or to create new and independent avenues of liability?

As discussed above, the climate change litigation docket is rapidly expanding. It is clear that it has already had a forcing effect on legislation and regulation. While lawsuits based on public nuisance theories have thus far been dismissed as posing nonjusticiable political questions, that outcome may vary across states and federal districts, and additional theories of liability may emerge. Cases seeking monetary

[59] For example, California, Hawaii and New Jersey have set mandatory, economy-wide caps on greenhouse gas emissions, while ten other states have formed the Regional Greenhouse Gas Initiative (RGGI), a mandatory cap-and-trade program to reduce carbon dioxide emissions from power plants; *see* Petition for Interpretive Guidance on Climate Risk Disclosure, SEC File No. 4-547 (September 18, 2007) [hereinafter Ceres Petition].

damages present difficult questions of causation and other potential pitfalls for plaintiffs, yet may expose entire industries or broad sectors of the economy to liability.[60]

Which sectors are going to bear greatest cost and risk of climate change, directly and indirectly? How will these risks be spread over time? To what extent will costs be recoverable from customers or rate payers?

These are, of course, the Holy Grail issues for investors. The uncertainty of the national regulatory picture and the still undermined role of the developing economies in GHG emission reduction, means that there are no readily available answers. Because there already have been some discernible shifts in consumer markets, however, such as the popularity of the Toyota Prius or the willingness of some utility customers to pay a green premium for wind power, investors continue to scour the landscape for clues, and are seeking whatever information management is willing or compelled share.

Where are the opportunities embedded in climate change? For example, who will be the technology winners in the alternative energy markets or in emerging technologies to enhance energy efficiency?

As climate change affects the regulatory and physical environment, new business opportunities will arise. State and regional regulation already has jump-started markets for alternative energy and carbon emissions credits. Investors are always interested in

[60] Shareholder litigation against officers and directors who fail to respond to climate change also may be on the horizon. Expectations flowing from the board's duty of care—including its obligations to inquire, to be informed and to employ adequate internal monitoring mechanisms—may create new consequences for boards and modify the standards by which their conduct is judged. *See* Jeffrey A. Smith and Matthew Morreale, *Boardroom Climate Change*, New York Law Journal, vol. 238., no. 10, July 16, 2007.

determining which companies are best situated to capitalize on climate change opportunities.

What are the likely business consequences for non-industrial, sectors such as the insurance and financial industries, and how can companies that are well-situated to address these challenges be differentiated from those that are not?

The insurance sector, because of its longer-term financial horizons and its exposure to the consequences of climate change through property and casualty coverage lines, life insurance and direct ownership of physical assets, was among the first sectors to call attention to climate change as a business phenomenon.[61] The market wants information to allow it to separate the well-positioned from the vulnerable.

How will these risks and opportunities play out up and down the supply chain?

Climate change will doubtlessly have consequences throughout the commercial supply chain in the U.S. and abroad. General Electric, for example, has already made a widely-publicized move into "green power" through its "ecomagination" initiative.[62] With GE as a major mover in the wind turbine industry, the makers of components might be tempted to disclose this opportunity to investors in their SEC filings. Given some of

[61] *See* The Center For Health and The Global Environment, Harvard Medical School, Sponsored by Swiss Re and the United Nations Development Programme, *Climate Change Futures: Health, Ecological and Economic Dimensions*, November 2005, at 92-107 (discussing the financial implications of climate change, including potential limits of insurability).

[62] *GE Goes Green: But Climate Change Action Cannot Be Left to Companies Alone*, FINANCIAL TIMES, May 11, 2005, at 18.

the recent failures in siting wind farms[63] and the ongoing uncertainty about the tax status of such projects, returns are certainly not guaranteed, and capital investment may be premature. Detailed disclosure might obscure the fact that the overall wind power market is still miniscule and unlikely to be material to any company for years to come.[64]

How will these developments play out on the global stage and in international negotiations with the developing world, particularly the Chinese and Indian economies?

International developments will certainly have significant implications for U.S. reporting companies. The United States and the G-8 group of major industrialized nations recently agreed in principle to reduce greenhouse gas emissions by fifty percent by the year 2050.[65] The string of international summits—such as the Heiligendamm Summit, June 7-8, 2007, including the world's largest developing countries (Brazil, China, India, Mexico, and South Africa)—may portend federal regulation of high GHG-

[63] *See* Alliance to Protect Nantucket Sound, Inc. v. United States Dept't of the Army, 288 F. Supp. 2d 64 (D. Mass. 2003); Ten Taxpayers Citizen Group, et al, v. Cape Wind Associates, LLC, Civil Action No. 02-CV-12046-JLT (2003); Mark Harrington, *LIPA chief kills wind farm project*, NEWSDAY, August 23, 2007, available at http://www.newsday.com/business/ny-bzwind0824,0,7647935.story; Peter Applebome, *On an Upstate Wind Turbine Project, Opinions as Varied as the Weather*, N.Y. TIMES, October 28, 2007, available at http://www.nytimes.com/2007/10/28/nyregion/28towns.html?_r=1&oref=slogin.

[64] *See, e.g.*, Hexcel Corporation Annual Report, Form 10-K, for the Fiscal Year Ended Dec. 31, 2005, at 39. ("Revenues from materials used to build the blades of wind turbine applications again showed strong growth, up over 50 percent in constant currency compared to 2004. The growth was driven by the increased number of global wind turbine installations and market share gains made in 2004.").

[65] *See* Michael A. Fletcher, *G-8 Leaders Back 'Substantial' Cuts In Gas Emissions*, WASHINGTON POST, June 8, 2007, at A12.

emitting sectors.[66] Investors are eager to see how domestic companies will respond and how their overseas assets and production will be affected.

VII. Market Responses

Public money and private interests have recently combined at a level unprecedented in my experience to support the numerous disclosure and reporting initiatives outlined in the Introduction to this testimony. It is a fair barometer of this confluence of public and private interest that the Ceres Petition was signed by ten state attorneys general or treasurers.[67] In addition numerous marketplace initiatives have begun to spring up. The Ceres Petition accurately notes that numerous prominent investment firms and consultants now offer advisory services, investment research, funds and indices that analyze business responsiveness and positioning in relation to climate change.[68]

In the information marketplace, shareholder resolutions on climate change and emissions policies have increased rapidly, from 6 in 2001[69] to almost 50 in 2007. They

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[66] *See* Joint Statement by the German G8 Presidency and the Heads of State and/or Government of Brazil, China, India, Mexico and South Africa on the Occasion of the G8 Summit in Heiligendamm, Germany, 8 June 2007, *available at* http://www.g-8.de/nsc_true/Content/EN/Artikel/__g8-summit/anlagen/o5-erklaerung-en,templateId=raw,property=publicationFile.pdf/o5-erklaerung-en.

[67] *See* Ceres Petition at 57.

[68] *Id.* at 35.

[69] Douglas G. Cogan, Ceres, *Corporate Governance and Climate Change: Making the Connection*, at 16 (Mar. 2006), *available at* http://www.ceres.org/pub/docs/Ceres_corp_gov_and_climate_change_0306.pdf.

account for over ten percent of all shareholder resolutions filed.[70] These resolutions are reaching levels of success unimaginable just a few years ago, averaging slightly below 20% shareholder approval.[71] Approximately one-third of these resolutions have resulted in negotiated withdrawals.[72]

VIII. Next Steps and Possible Solutions

When faced with challenging circumstances, lawyers like to look for precedents. Although this is arguably a situation without true precedent, there are two corollaries, one from the environmental arena and one from outside, that are instructive in what next steps by the SEC might help public companies and the marketplace develop consistent and more informative climate change disclosure.

When Superfund was enacted in 1980, it introduced substantial doubt about legal and regulatory outcomes of hazardous waste cleanup. In particular, Superfund's new liability scheme, which provides for liability that is strict (without regard to fault), joint and several (through which contributors to contamination are liable both individually and as a group for the entire cost of a cleanup), and retroactive (in which liability is not dependent on the legality of the original disposal activity), created significant concerns in

[70] Carolyn Mathiasen, *2007 Proxy Season Preview: Environmental Issues*, RISK & GOVERNANCE WEEKLY, *available at* http://www.issproxy.com/governance_weekly/2007/004.html.

[71] *2007 Postseason Report: A Closer Look at Accountability and Engagement*, RiskMetrics Group (October 2007).

[72] *See* Investor Network on Climate Risk, *2007 Proxy Season - Resolution Tracker* (May 31, 2007), http://216.235.201.251/NETCOMMUNITY/Document.Doc?id=2.

the marketplace about the scope of the costs to responsible parties. Superfund also displaced some of the traditional notions of individual and corporate liability, by providing that an individual corporate officer or a parent corporation could be responsible for the costs of cleanup if they had exercised control over a corporation's handling and disposal of hazardous waste.

As a result, for reasons grounded in physical and fiscal reality — How many waste sites am I involved in? What will be required to clean them up? How much will it cost? — and in the uncertainty of legal doctrine, corporate ability to analyze exposure correctly and succinctly, and then to quantify it and disclose it to the marketplace, was murky at best.[73] Before any extensive experience with cleanup could be amassed by the companies that were responsible, Superfund also posed many of the same challenges involving estimation of contingencies under FAS 5, as have been discussed above.

Over time, and under some pressure from investors, the SEC provided a series of clarifications; concerning the scope of Item 103 disclosure of "sanctions" in the

[73] *See, e.g.*, Ford Motor Company Annual Report, Form 10-K, for the Fiscal Year Ended December 31, 1983. ("Superfund also requires disclosure of certain other releases into the environment and creates potential liability for clean-up costs and for injury to the environment resulting from a release. [We have] received notices under Superfund or applicable state law that, along with others, [we] may be a potentially responsible party under such legislation for the cost of cleaning up a number of hazardous waste disposal sites in California, Illinois, Indiana, Michigan, Minnesota, New Jersey and Ohio. [We] may have been a generator of hazardous wastes at a number of other sites. [We are] unable to determine the costs which [we] may incur under such legislation; however, such costs could be substantial.")

Superfund context;[74] to clarify how materiality was to be defined;[75] and finally, in a more comprehensive staff guidance document, to address detailed concerns such as management's responsibility to conduct independent diligence on the likely outcome and cost of remediation at a disposal site[76]; the role of insurance as a potential off-set to existing liabilities[77]; and the appropriate financial statement treatment of contingencies that were susceptible to some, but not a definitive, estimation.[78] This guidance was followed by a widely publicized speaking tour by then-Commissioner Roberts[79] in which the SEC's expectations were further clarified. The market heard that the SEC was watching these issues closely. The market also heard that the SEC and EPA were sharing

[74] Management's Discussion and Analysis of Financial Condition and Results of Operations; Certain Investment Company Disclosures, Securities Act Release No. 6835; Exchange Act Release No. 26831, 54 Fed. Reg. 22427 (May 18, 1989).

[75] SEC Staff Accounting Bulletin No. 99, 17 C.F.R. Part 211 (1999).

[76] SEC Staff Accounting Bulletin No. 92, 58 Fed. Reg. 32843, 32844 (1993).

[77] *Id.* at 32844.

[78] *Id.* at 32845.

[79] *See*, *e.g.*, Remarks of Richard Y. Roberts, SEC Commissioner, *SAB 92 and the SEC's Environmental Liability Disclosure Regulatory Approach*, address delivered to the 1994 Quinn, Ward & Kershaw Environmental Law Symposium, The University of Maryland School of Law, Baltimore, MD (April 8, 1994); Remarks of Richard Y. Roberts, SEC Commissioner, *Environmental Liability Disclosure, Litigation Reform, and Accounting Matters of Interest*, address delivered at the National Association of Manufacturers 1993 Government Relations Committee, Fall Meeting, Chatham, MA (September 20, 1993); Remarks of Richard Y. Roberts, SEC Commissioner, *Environmental Liability Accounting Developments*, address delivered at the American Bar Association, Fourth Annual Joint Conference On Environmental Aspects of Corporate & Real Estate Transactions, New Orleans, LA (June 10, 1993).

data on Superfund cleanup.[80] While the response of most public companies in their disclosure was neither perfect nor immediate, meaningful disclosure of the depth and breadth of Superfund and hazardous waste remediation liability developed over a comparatively short period of time.[81]

Outside the environmental arena, the SEC's response to a crisis that was potentially world-wide in scope and uncertain in effect is instructive. In the late 1990s, there was great concern over the potentially devastating effects of the so-called Millennium, or Y2K, bug. The Y2K problem led to speculation that the year 2000 would be represented by 00 and interpreted by software as the year 1900. The feared result was that critical industries would be affected by computer systems that produced either

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[80] *See* Remarks of Richard Y. Roberts, Commissioner, U.S. SEC on Environmental Liability Accounting Developments before the American Bar Association, Fourth Annual Joint Conference On Environmental Aspects of Corporate & Real Estate Transactions, New Orleans, LA, June 10, 1993.

[81] *See, e.g.* LTV Steel Company, Inc. Annual Report, Form 10-K, for Fiscal Year ended December 31, 1986, at 33, ("A hazardous waste disposal site located in Grand Prairie, Texas has been designated by the U.S. EPA Superfund Act as a Superfund site requiring cleanup. Aerospace and the Company have been named by the U.S. EPA as potentially responsible parties. In 1977, the steel group shipped 4,700 gallons of a hazardous waste to the site for disposal. The U.S. EPA has estimated that the Company's share of the total volume of wastes at the site is .107%. Aerospace is alleged to have an estimated 9.147% share of the total volume of such wastes. In June 1984, the U.S. EPA issued a Final Record of Decision for the site which set forth a $4.6 million cleanup program. The potentially responsible parties had jointly endorsed a cleanup program costing approximately $1.7 million. The U.S. EPA rejected the $1.7 million settlement offer and has notified the potentially responsible parties that it will unilaterally undertake the cleanup of the site and will bill the parties when total cleanup costs are known. The U.S. EPA's current estimate of the cost of the cleanup program is approximately $8 million. Aerospace and the Company issued a reply to the U.S. EPA, taking the position that because of the Chapter 11 filings, amounts allegedly owed by them are prepetition in nature and therefore cannot be paid.").

delayed or erroneous results and that markets would be undercut by their reliance on computer programs.[82]

Faced with a situation in which there were substantial market concerns about the potential for a calamitous risk and market uncertainty about how such a risk might actually be manifested in any particular company's operations, the SEC chose to reissue a Staff Legal Bulletin[83] to mandate disclosure. It is noteworthy what the SEC chose to require. First, the staff stated that any company that had not assessed the Y2K problem in its operations should disclose that fact, because it was a material "known uncertainty" under Item 303. While reasonable minds can differ about whether businesses' reliance on computers was more widespread (and critical) than the current threats of climate change to business, the interesting thing is that the SEC recognized that investors would benefit from a statement about the degree (or absence) of preparedness to meet the challenges, irrespective of the substance of the results.

Second, the Staff required companies to disclose in "specific and meaningful" language, the results of their inquiries about Y2K effects up and down their supply

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[82] *See* Tom Foremski, *Millennium 'bomb' is already ticking: The need to ensure that vital systems do not fail in 2000 is holding up other IT work*, Fin. Times (December 2, 1998). ("Some economists, notably Ed Yardeni, chief economist of Deutsche Bank Securities in New York, have warned that Y2K problems have a 70 per cent chance of triggering a global recession. [Capers] Jones [chief scientist of Artemis Management Systems of the US] says that with his best case scenario of 85 per cent of fixes completed in the US and the UK, "it puts us on the cusp of a possible recession". He had advised the European Union to delay the launch of the euro, arguing that IT departments do not have the resources to tackle two of the most challenging IT projects ever encountered. "The euro affects about 10 million software applications, but Y2K affects some 36 million software applications worldwide," estimates Mr Jones.").

[83] Staff Legal Bulletin (SLB) No. 5 (Revised January 12, 1998).

chains, recognizing that a critical weak link there could be as disruptive as a failure on the part of the issuer's own systems. Similarly, a company with no significant direct GHG emission exposure, but in a high energy use business, might find its cost structure altered dramatically by the consequences of GHG emission regulation on the public utility providing its power. Finally, disclosure was required if the issue was material "without regard to related countervailing circumstances", such as plans to cure the problem.

Disclosing companies largely responded to the timeliness and clarity of this guidance. While (mercifully) the underlying problem never truly manifested itself in the marketplace, the degree of awareness and the levels of preparedness by public companies were assisted by the disclosure process.

IX. Conclusion

In summary, it is important for the SEC to move with deliberate speed to reassert its gatekeeper role for the market and to clarify its expectations, but to do so within the rubric of well-settled principles. Over-reaction or radical change will create confusion and could unleash a flood of defensive filings of immaterial and premature information, which ultimately will be damaging to investors and the marketplace. It is also important for the SEC to recognize that it must give climate change ongoing attention, because the lessons of Superfund disclosure strongly suggest that, no matter how well intentioned, public companies will not get it completely right the first time, and that changing circumstances will dictate changing responses.

I would be pleased to be of ongoing assistance to the Subcommittee as it continues to consider this issue.