



Precautionary Preference

How Europe's New Regulatory Protectionism
Imperils American Free Enterprise©

by

Lawrence A. Kogan, Esq.

Institute for Trade, Standards and Sustainable Development, Inc.
116 Village Boulevard, Suite 200
Princeton Center
Princeton, NJ 08540-5700
609-951-2222

Website: www.itssd.org

July 2005

ITSSD is an independent, non-partisan, not-for-profit organization dedicated to the promotion of a positive paradigm of sustainable development consistent with World Trade Organization principles. Donations and other forms of support are tax-deductible and do not influence the views and policies of the Institute.

Copyright © 2005 THE INSTITUTE FOR TRADE, STANDARDS AND SUSTAINABLE DEVELOPMENT, INC.

TABLE OF CONTENTS

I. INTRODUCTION: EUROPE AS THE NEW GLOBAL REGULATOR.....	6
II. WHAT IS THE PRECAUTIONARY PRINCIPLE?.....	8
A. Evaluates Hazards Rather Than Risks.....	8
B. Dispenses With Economic Cost-Benefit Analysis	8
C. Generates Fear and False Perceptions that Lead to Risk Aversion	8
III. HOW DID THIS OCCUR? – IT BEGINS WITH HEALTH AND THE ENVIRONMENT AND ENDS WITH TRADE	9
A. The Crafting and Packaging of a Regional EHS Policy Message	9
B. Incorporating Regional EHS Policy into the International Trade System.....	10
C. Establishing the Political and Moral Legitimacy of European EHS Policy.....	11
D. Using EHS Policy as a Disguised Trade Barrier	11
IV. EXAMPLES OF EUROPEAN PRECAUTION-BASED EHS REGULATIONS	12
A. Biotech Products.....	12
B. Toxic and High Volume Chemicals	12
C. Cosmetics	13
D. Biocides	13
E. Product Stewardship, Life Cycle Management and Waste Disposal	13
F. Climate Change	14

V. THE HIGH COSTS OF PRECAUTIONARY PRINCIPLE-BASED REGULATION	17
A. Compliance, Intellectual Property and Misrepresentation Costs.....	17
B. Social and Eco-Labeling and the Costs of Brand Reputation.....	17
C. Tort Liability Costs.....	18
D. Insurance Costs Related to Development Risk.....	22
E. Insurance Costs Related to Climate Change.....	25
F. D&O Liability and the Business Judgment Rule.....	28
G. The Encroaching Sarbanes-Oxley and SEC Disclosure Rules.....	33
VI. EUROPEAN INDUSTRY’S EXPERIENCE WITH HIGH COST PRECAUTIONARY PRINCIPLE-BASED REGULATIONS	35
A. Overall	35
B. Forest-Based Industries	35
C. Pharmaceuticals and Life Sciences.....	36
D. Chemicals and Downstream Industries	37
VII. PRECAUTIONARY PRINCIPLE-BASED REGULATIONS EXPORTED TO CHINA	40
VIII. PRECAUTIONARY PRINCIPLE-BASED REGULATIONS PROPOSED AND ADOPTED IN THE U.S.	43
A. General	43
B. Sector-Based State and Local Legislative Initiatives	44
1. <i>Hazardous Substances and Waste Product Disposal</i>	44
2. <i>Cosmetics</i>	49

3.	<i>Toxic and High Volume Chemicals</i>	49
4.	<i>Biotech Foods – State and Local Initiatives</i>	50
4.	<i>Climate Change</i>	53
C.	State and Local Law Initiatives to Adopt the Precautionary Principle.....	62
IX.	EFFORTS TO REFORM U.S. FEDERAL LAW.....	62
A.	State Attorneys General Lawsuits on Climate Change.....	62
B.	Efforts to Enact Federal Legislation on Climate Change	65
C.	Efforts to Change Environmental Accounting and SEC Disclosure Rules (Non-SOX)	69
1.	<i>SEC Disclosure Rules – S-K Regulations</i>	69
2.	<i>Changing Financial Accounting Rules to Broaden Environmental Disclosure – SEC Petition 4-463</i>	70
3.	<i>Congressional, State and UN Activities Concerning SEC Disclosure Rules</i>	71
D.	Efforts to Reform Federal Food, Drug and Chemicals Regulations	73
1.	<i>Agricultural Biotech/USDA/FDA/EPA</i>	73
2.	<i>FDA/Medical Biotech</i>	75
3.	<i>FDA/Antimicrobial Animal Drugs</i>	76
4.	<i>Toxic Chemicals/EPA</i>	78
5.	<i>Waste Disposal and Take-Back/EPA</i>	81
X.	IMPOSING PRECAUTIONARY PRINCIPLE-BASED SUPPLY CHAIN MANAGEMENT STANDARDS – THE GROWTH OF ‘SOFT’ LAW	81
A.	General	81
B.	The EU and United Nations as Protagonists.....	82

1. <i>Threatening Company Brand Reputation and Shareholder Value</i>	83
2. <i>U.S. Manufacturing Sectors Affected</i>	83
3. <i>U.S. Sectors Affected</i>	85
4. <i>Accounts Broadly for Company and Brand Reputation</i>	87
XI. THE BROADER INTERNATIONAL LEGAL, POLITICAL AND ECONOMIC IMPLICATIONS.....	91
A. The Legal Rights of Individuals vs. the Collective Legal Rights of Society	92
B. EU Cultural Values Are Critical of U.S. Free Markets – The Role of Social Welfare Theory.....	93
C. Exporting Social Welfare Statism to Constrain U.S. Industry – Securing a Competitive Economic Advantage	95
D. Using European Cultural Values to Change International Law.....	100
CONCLUSION.....	103
ENDNOTES	105

This paper will form the basis for a forthcoming Washington Legal Foundation Monograph, to be released by the Foundation's Legal Studies Division in August 2005.

I. INTRODUCTION: EUROPE AS THE NEW GLOBAL REGULATOR

U.S.-based businesses of all sizes, but especially small and medium sized businesses will, over time, likely be subject to more stringent environment, health and safety ('EHS') regulations and related technical product standards. Whether they know it or not, many of these rules will have originated within the European Union ('EU') without their constructive input or consent – 'regulation *without* representation'. According to a 2002 *Wall Street Journal* article,

Americans may not realize it, but rules governing the food they eat, the software they use and the cars they drive increasingly are set in Brussels, the unofficial capital of the EU and the home of its executive body, the European Commission. Because of differing histories and attitudes toward government, the EU...with the world's second-largest economy, regulates more frequently and more rigorously than the U.S., especially when it comes to consumer protection. So, even though the American market is bigger the EU, as the jurisdiction with tougher rules, tends to call the shots for the world's farmers and manufacturers... EU rules often cause particular friction in high-tech fields, such as software, electronic commerce and biotechnology... The EU requires any product that contains even 1% of a genetically altered ingredient to say so on its label... pending European recycling rules, which are tougher than U.S. standards... would require electrical equipment makers to eschew certain hard-to-recycle plastics and chemicals, such as brominated flame retardants... the EU is considering requiring companies to test 30,000 chemicals already on the market to see whether they are hazardous, as well as thousands of products that use some of the chemicals in question... another EU initiative targets auto makers..."¹

Indeed, as reflected in official EU policy documents, the products covered by these regulations, directives² and standards³ "represent a large proportion of [all] products that are placed on the market. It is estimated that, as of 2003, the trade of products covered only by the major [agricultural and industrial] sectors regulated... largely exceeds the volume of 1500 billion euro (1.5 trillion euro) [(or approximately \$2.25 billion)⁴] per year."⁵

Given the breadth and reach of these regulations and standards, the U.S. business community should be alarmed, no matter the sector (goods or services) in which they operate and no matter where they design and manufacture their products. These rules will affect small and medium-sized companies operating within specialized market niches that serve as catalysts for research and development in areas of new technology or processing techniques (e.g., information technology, nanotechnology, biotechnology, pharmaceuticals, processed foods, vitamins, etc). They also will affect small and medium-sized businesses providing valuable inputs for larger manufactures (e.g., parts and component suppliers, industrial chemical manufacturers, electrical and electronic equipment manufacturers, etc.).

In addition, they will affect U.S. small and medium-sized businesses operating within more 'downstream' product sectors that incorporate or use substances or products developed by much larger companies within their own manufacturing processes or final products (e.g., cosmetics, paints, textiles, plastics, automotive, agriculture, etc.).⁶ These downstream companies are likely to comprise the largest group of businesses that will be adversely impacted by overly stringent European EHS regulations. Downstream service sector companies will also be potentially affected by such rules to the extent they utilize banned or severely restricted substances in rendering their services to third parties (e.g., dry cleaners, auto garages, lodging, catering services, transport services, printing, farming, etc.). And, services companies operating within the construction and real estate development industries will also likely encounter these rules, both here and abroad, to the extent their land use activities are deemed to threaten the environment.

A growing number of these EHS regulations and product standards are based on an evolving international legal norm known as the 'precautionary principle'. The precautionary principle is essentially a non-scientific, 'better safe than sorry', risk-averse philosophy of regulation. It has already assumed the status of regional law within Europe, and European regulators and environmental groups are eager to establish it as an international and a U.S. legal standard.

The aim of this study is to highlight how European environmental, health and safety regulators have imposed hundreds of precautionary measures and controls on business conduct, the nature of these regulations, and how they affect U.S. enterprises doing business internationally (within Europe *and* third countries, including China). It also discusses how such hazard-based, rather than science/risk-based, regulatory controls are becoming increasingly popular in the U.S., and how our economic competitors would benefit from the widespread export of the precautionary principle to America. The paper begins by explaining what the precautionary principle is and how it has assumed a central role in Europe's grand global strategy of achieving 'sustainable development'.

It then explains what American companies can expect if precautionary principle-based regulations were adopted within the United States. It does so by pointing out the high business and legal costs borne by European companies in comparable industry sectors, as well as, the chilling effect these regulations have had on European research and development, capital investment and technological innovation. This study also discusses how precautionary principle-based regulatory changes would profoundly impact, in a negative way, several areas of U.S. law beyond environmental, health and safety, namely tort, insurance, corporate, and securities law.

Furthermore, the study discusses how the EU, with assistance from European and American environmental non-governmental organizations ('ENGOS'), has already begun to inject similar rules into U.S. law. Thus far, they have been limited mostly to state and local initiatives, though a number of state attorneys general have filed suit against the U.S. Environmental Protection Agency over the issue of global climate change. There are also various efforts underway to review federal environmental, food, drug and chemical regulations that precautionary principle advocates believe fail to ensure a high enough level of public safety. These reviews will likely be critical of current rules and procedures and be brought into the public spotlight for purposes of inducing consumer fears and concerns. This way, enough public pressure can be generated to force regulators and the U.S. Congress to replace the benchmark federal standards of sound science and economic cost-benefit analysis with the precautionary principle.

The study additionally identifies how U.S. companies have increasingly fallen subject to the relatively new but growing ENGO discipline of 'supply-chain management', which is an outgrowth of the global corporate social responsibility ('CSR') movement. With guidance and assistance from the EU and the United Nations Global Compact Office, Environment Program, and Commission on Sustainable Development, European-based ENGOS and social groups have developed and imposed on U.S. multinational companies and their small and medium-sized suppliers the duty/obligation to comply with Euro-style CSR standards. These standards generally demand that companies act in a socially and environmentally responsible manner consistent with the precautionary principle, in excess of legal requirements, no matter where they conduct their business. These standards also require that multinational companies and their suppliers submit to audits and verification by private third parties – 'global stakeholders' (ENGOS and social groups, not stockholders or debt-holders) – and that they publicly report their CSR activities annually.

Lastly, this paper urges U.S. industry and government to draw an unwavering 'line in the sand' beyond which no extraterritorial EU environmental, health, and safety rules may pass, unless scientifically, technically and economically justified. In other words, U.S. industry and government must quickly join ranks to protect the American enterprise system, its current comparative advantage in international trade and technological innovation and its longer-term national economic prospects. And, the U.S. must accomplish this without falling down the

slippery slope of trade protectionism. All of these interests are now under threat from a European Union with grand ambitions — one that is endeavoring to shape the 21st century global agenda through its involvement in the United Nations as it aspires to become a global political and economic power in its own right. In essence, U.S. industry and government must not permit the new global regulators and their civil society allies to unilaterally impose on America EU cultural preferences and legislative mandates by employing the precautionary principle under the guise of European enlightened altruism, i.e., sustainable development.

II. WHAT IS THE PRECAUTIONARY PRINCIPLE?

A. Evaluates Hazards Rather Than Risks

The European Commission has increasingly employed the precautionary principle to identify and manage uncertain future risks to the environment and human health and safety deemed posed by modern agricultural and industrial activities and technological innovations. It favors banning or severely restricting particular substances, products and activities if it is merely possible that they or the processes used for their manufacture, formulation or assembly might, sometime in the uncertain distant future, cause potentially serious health or environmental harm.

Pursuant to the precautionary principle, government regulators need not prove objectively through empirical scientific risk assessment, actual exposure data, and probabilistic computations (extrapolated safety factors) that a particular substance or product is likely to cause actual harm within a foreseeable period of time to a specifically identified population or ecosystem. Rather than focus on the probable occurrence of actual risks under real life circumstances (i.e., with reference to use and exposure), the EU Commission and European environmentalists have promoted a new framework that effectively shifts the subject of evaluation from actual risks to hypothetical hazards. Pursuant to this new paradigm, which arguably shortcuts the scientific process, regulators need simply to identify a product's or substances' inherently dangerous characteristics or intrinsically harmful qualities and to rely upon an administratively-created presumption of possible harm. That presumption is itself based on abstract categorizations of broad classes of products or substances with similar hazard profiles.

B. Dispenses With Economic Cost-Benefit Analysis

In addition, EU regulators who employ the precautionary principle and their environmental and political allies have dismissed the need to undertake an economic cost/benefit analysis that is required by U.S. law for many types of regulations. Cost-benefit analysis is utilized by the U.S. government⁷ as a safeguard to ensure an equitable balancing of important societal interests, including those of industry. In fact, the legal adviser to the EU Commission has spoken out strongly against the use of economic cost-benefit analysis, alleging that “[c]ost benefit analysis and other influences can lead to undue delays in precautionary action and further losses.”⁸ Perhaps this is due to the fact that there is no provision currently within European Community law requiring regulators to evaluate the economic impact or costs of assessing and managing public risks in a systematic manner.⁹

C. Generates Fear and False Perceptions that Lead to Risk Aversion

A review of Commission and Parliament activities reveals that European regulators are indeed focusing less on objective scientific evidence when evaluating public risks and more on subjective nonscientific criteria based on abstract notions of ‘morality’, ‘social justice’ and

‘quality of life’ rooted in unfounded perceptions of risk. These perceptions are generated by politically active and ideologically motivated environmental and consumer groups and like-minded politicians, who demand that regulators eliminate from society all health and environmental risks. The ideological ‘concerns’ of these influential non-governmental organizations (‘NGOs’) are raised to the level of ‘public’ consciousness via misinformation and fear campaigns¹⁰ that so exaggerate the presence of hypothetical hazards that perceived risks have become more important than *actual* risks in the public’s mind.¹¹ Indeed, some leading activists have referred to the precautionary principle in the media as “the most radical idea for rethinking humanity’s relationship to the natural world since the 18th-century European Enlightenment”, and as presaging a “great shift from a risk-taking age to a risk-prevention era.”¹²

While Europe’s resort to the precautionary principle to prevent emerging public hazards may sound appealing and provide surface level comfort, especially to older risk-averse citizens,¹³ it is simply not possible, in the real world, to eliminate all risks, no matter what these groups claim. But, risk aversion is precisely the foundation underlying the precautionary principle, which “asks how much harm can be avoided rather than how much is acceptable.”¹⁴ In essence, the precautionary principle effectively states that industry must demonstrate to governments’ satisfaction that a product, substance or activity deemed inherently hazardous is ‘safe’ or ‘harmless’ before it can be authorized for sale, distribution or marketing. This is equivalent to imposing upon industry a negative burden of proof or a zero-risk threshold that will severely curtail economic growth, technological innovation and societal well being and quality of life.

III. HOW DID THIS OCCUR? – IT BEGINS WITH HEALTH AND THE ENVIRONMENT AND ENDS WITH TRADE

A. The Crafting and Packaging of a Regional EHS Policy Message

Europe’s regulatory and standards juggernaut can be traced, in part, to a philosophical skepticism towards the limits of contemporary empirical (evidentiary) science and technology and to a *political* need to calm public fears, whether justified or not, about a growing number of uncertain but perceived risks associated with modern life. These fears have been largely induced by European non-governmental organizations (ENGOS) which, time and again, have launched particularly damaging media campaigns against European companies. Because of the significant political influence wielded by these civil society groups within Brussels and European capitals, EU regulators have had to respond to their concerns. In fact, pro-environment EU regulators have enlisted the assistance of these groups for the purpose of developing a regional public policy premised on notions of morality that calls for higher regional and global EHS protections.

The Brussels institutions have funded and delegated quasi-legislative authority to such groups in order for them to disseminate and justify this policy to the European public (including industry). That policy essentially rejects U.S. scientific and technical innovations, economic efficiencies and free markets (i.e., globalization) in the name of establishing a regional (and global) democracy ‘of and for the people’. It emphasizes that the desired high level of European public protection cannot be attained if scientific risk assessment is used as a legal benchmark. It argues that risk assessment is a primitive discipline that is unable to identify a great number of uncertain modern risks that can trigger catastrophic human and social losses. It also rejects the U.S. legal benchmark of economic cost-benefit analysis, which it claims has become a politically charged, illegitimate process that has been adeptly manipulated by American industry to prevent the adoption of necessary U.S. EHS regulation.

Over time, European civil society also enlisted the aid of politically -minded European scientists in search of research grants, who successfully helped them to translate this policy message into a series of regional legislative frameworks premised on the new legal and scientific benchmark of ‘hazard’-based analysis.¹⁵ Hazard-based analysis looks to the inherent characteristics and intrinsic qualities of substances and products to determine whether they may pose possible future harm to health and the environment. Hazard-based analysis does not require that regulators undertake an economic cost-benefit analysis, or the painstaking process of risk assessment that requires empirical proof of harm based on actual exposure. Hazard-based analysis has a less technical and scientific name – it is otherwise known in European political circles as the ‘precautionary principle’. And, it has been established as a norm of EC Treaty law.

B. Incorporating Regional EHS Policy into the International Trade System

In order to exploit this regional policy for purposes of international trade, European regulators have endeavored to promote on a global level the same very close link between EHS regulation (government policymaking) and ‘top-down’ (rather than industry-driven) product, process and service standardization that they have already established at the European regional level. The process of standardization serves an important role within Europe – it helps to translate essential environment, health and safety regulatory and policy requirements into understandable technical guidelines which businesses may then use to design, manufacture, formulate, assemble and dispose of their products. In light of this important link, the EU Commission has emphasized the need to involve ‘all relevant stakeholders’, including European civil society, in the EU standards process to ensure that European EHS policy considerations are fully taken into account.¹⁶ This practice has been self-reinforcing, insofar as, it has resulted in more and more environmental, health and safety requirements being promulgated and incorporated into EU regional regulations and standards.

To broaden and strengthen the impact of European regional regulation and standardization globally, the EU Commission has promoted the use of cooperative agreements¹⁷ between the European political and technical communities and the relevant international bodies referenced in the World Trade Organization (‘WTO’) Agreements.¹⁸ These bodies are held responsible for developing globally harmonized, science-based, and economically-efficient international standards. They are also entrusted with ensuring that while divergent national and regional regulations and standards may incorporate an appropriate level of EHS protection consistent with national and/or regional policy objectives, those protections are not used as disguised barriers to international trade. To this end, the EU has argued that the appropriate level of protection is that which reflects the use of the precautionary principle to adequately safeguard important European public EHS interests and cultural values.

Until recently, American policymakers and standards development organizations did not fully appreciate the extent of the Commission’s use of these agreements to ‘bootstrap’ EU regional standards and preferences to international standards. They also did not realize how this fluid mechanism effectively enhances the EU’s ability to incorporate their precautionary principle within international standards and the international standards-making process at the expense of U.S. industry.¹⁹ In the words of former EC Enterprise Commissioner Erkki Liikanen, standards have “offered [the EU] a systematic framework *to take over* international standards and/or to contribute to the international standards-making process” (emphasis added).²⁰ Apparently, Germany is largely the source behind Europe’s drive to dominate international standardization.

As the export “world champion”, and the leading exporter of technology, Germany needs an effective standardization body. Standards play an extremely important role both economically and

politically...Standardization helps the rapid dissemination of technical knowledge and innovation, increasing the business competitiveness...[S]tandardization is also extremely relevant for the individual participants in economic processes, *since whoever makes the standards controls the market*. In times of increasing globalization and rapid technological development, the role of standardization in opening up new markets will become increasingly important (emphasis added).²¹

C. Establishing the Political and Moral Legitimacy of European EHS Policy

Given the technical and arcane nature of international standardization, U.S. observation of EU Commission and European civil society advocacy activities has, until recently, been largely focused on the higher profile political dimensions of international regulation. Europe has been most vocal and has played an increasingly influential role in the policymaking activities of the better known inter-governmental bodies. A number of these bodies are related to the United Nations and the Organization for Economic Cooperation and Development (OECD).²² Evidence more than suggests that, the EU Commission and European civil society are attempting to use these bodies as vehicles to establish the international political and moral legitimacy of their precautionary principle.

In an effort to link the political and moral dimensions of international trade policy with the real economic dimensions of international trade, the EU Commission has sought to update WTO rules. European civil society believes they must undertake such changes because the institution of the WTO is no longer legitimate. In their view, its rules no longer reflect the evolving needs and expectations of a global civil society that transcends national borders and that seeks to protect the global environment ('commons') which all humankind shares. As previously noted, however, these rules also prohibit the use of technical regulations and standards as disguised trade barriers, and arguably prevent the incorporation of (EU) cultural values (the precautionary principle) into regional and national EHS regulations and standards if they result in arbitrary or discriminatory trade restrictions.

Hence, the EU has endeavored to convince other WTO members of the political expediency of incorporating their own societal and environmental values/ preferences within national and regional regulations and standards even if they may have the effect of restricting international trade. Thus far, this has permitted the EU to justify its imposition of precaution-based regulations and standards upon EU trading partners. In doing so, it has relied on the position articulated last year by former EU Trade Commissioner (now WTO Director General) Pascal Lamy. He argued that mutual respect for national cultural preferences falls within the notion of 'mutually balanced concessions' that underlies the quid pro quo achieved long ago under the General Agreement on Tariffs and Trade (GATT).²³

D. Using EHS Policy as a Disguised Trade Barrier

It has become increasingly clear, however, that Europe's strict EHS policies based on the precautionary principle have an added *economic* dimension.²⁴ Ailing, lagging or underdeveloped European industries, overwhelmed by significantly higher regional regulatory, standardization, labor and energy costs and starved from a steady reduction in regional research and development investment, are no longer globally competitive. Because European industry has been unable to prevent the proposal and adoption of precaution-based regulations, it has chosen instead to appease and collaborate with their regulatory-minded and risk averse national and regional governments and the politically active European social and environmental movement. To this end, they have agreed also to assist these protagonists in establishing the precautionary principle, which implicitly

rejects U.S. scientific and technical innovations, economic efficiencies, intellectual property and free markets, as an absolute global legal standard by exporting it around the world,²⁵ especially to the United States. Coincidentally, this effort has also served to ‘protect’ European industry’s global economic interests by generating high business and legal costs, which all industry supply chains throughout the world must bear.

IV. EXAMPLES OF EUROPEAN PRECAUTION-BASED EHS REGULATIONS

There are numerous examples of European precaution-based regulations that reflect the use of an administrative presumption of hazard to ban or severely restrict the manufacture and use of certain products, substances and activities. As previously noted, this presumption arises even without scientific evidence showing actual harm or an ascertainable risk of harm posed by a specific product, substance or activity.

A. Biotech Products

The recently lifted EU seven-year moratorium against genetically modified (‘GM’) food, feed and seed (which has blocked approximately \$300 million per year of U.S. agricultural exports since 1998²⁶) is one such law. Also included are the GM pre-market authorization directive and the farm-to-table traceability and labeling regulations recently enacted to replace it.²⁷ These rules, in part, implement the political treaty obligations assumed by EU Member States under the Biosafety Protocol, a multilateral environmental agreement (‘MEA’) governing the transfer, handling and use of certain GM products. The EU interprets that treaty as requiring the application of the precautionary principle.²⁸ These rules effectively discriminate between otherwise identical products solely on the basis of their process or production methods (PPMs), even though *how* they were made has not been shown to have any negative impact on the safety or performance of the final product or on the condition of the environment.²⁹ In fact, the EU has even admitted that, “GM foods do not cause any harm to consumers. There is no evidence that this food is any more unsafe than conventional foods.”³⁰

B. Toxic and High Volume Chemicals

Another good example is the proposed EU regulation on high volume chemicals known as the Registration, Evaluation and Authorization of Chemicals (‘REACH’). REACH is a complex, three-level, volume-based system that mandates the registration of over 30,000 existing chemicals presumed to be hazardous. Also requiring evaluation of substances which ‘give rise to a particular concern’ and authorization for substances deemed to be ‘of high concern’, REACH does not consider, via a scientific risk assessment, the potential for actual human or environmental exposure (risk of harm) until *after* all *industry* testing has been completed.³¹ REACH would impose on U.S. exporters a broad legal duty of care, satisfaction of which requires compliance with an extensive, rigorous, costly and largely unnecessary pre-market authorization and information sharing process that requires disclosure of proprietary company data without adequate protection of intellectual property.³² Although REACH was drafted as a regional regime, the EU has all but admitted that it is intended to serve as a *global* template for the management of chemicals, and to impact virtually all product sectors at all levels of the global products supply chains.³³

C. Cosmetics

REACH dovetails with other related EU regulations like the Amended EU Cosmetics Directive. This directive bans the use of phthalates (known to be carcinogenic to mice) in cosmetic products even though scientific tests (risk assessments) have thus far found “no evidence

to suggest that consumer exposure to phthalates in cosmetics and personal care products poses a *human* health risk.³⁴ In addition, it bans the animal testing of most cosmetics prior to consumer use, even though failure to conduct such tests may expose humans to greater health risks.³⁵ If strictly applied, the ban would not only run counter to U.S. food and drug law mandating the animal testing of cosmetic products classified as ‘over-the-counter drugs’, but also would effectively require the reformulation by industry of all current cosmetics products.³⁶ This directive, furthermore, mandates full ingredient identification, which effectively requires disclosure of proprietary company data without adequate intellectual property protections. And it requires the labeling of all cosmetic substances which, as European industry has already found, is a very costly and unworkable requirement considering that fragrance compositions used in cosmetics typically contain numerous ingredients that can themselves be comprised of hundreds of individual substances.³⁷

D. Biocides

The REACH regulation is also complimented by the EU Biocidal Products Directive and accompanying regulations, which apply a similar presumption of hazard to broad classes of chemicals and/or biological agents (e.g., disinfectants, chemical preservatives, non-agricultural pesticides, etc.) with similar intrinsic properties. The EU biocides regime covers twenty-three different product types overall.³⁸ These rules require companies to obtain formal authorization of all existing ‘active’ substances³⁹ and preparations in which they are contained *before* they can market them. To obtain formal authorization, biocide producers and formulators must first prepare and submit very detailed active substance dossiers indicating that they have assessed the risk of their products in advance. Such costly and onerous burdens are imposed upon industry *before* any government scientific risk assessment identifying a particular risk of exposure or harm has been performed, and even though the authorization process itself could eventually take up to ten years to complete.⁴⁰ And, once companies have complied, they are not even assured that the risk assessment data they provide will be honored by regulators who are more concerned with hypothetical hazards than with probable risk exposure scenarios. What is most disturbing, however, is that EU regulators have gone so far as to dictate how industry should formulate its products, even where it has positively satisfied the relevant regulatory safety requirements.⁴¹ American companies should be very concerned about these rules considering how unworkable European companies have found them to be.⁴²

E. Product Stewardship, Life Cycle Management and Waste Disposal

Furthermore, the EU has adopted precautionary principle-based regulations mandating that companies employ ‘design for the environment’ or ‘life cycle management’ principles when conceptualizing, manufacturing, formulating, assembling and ultimately disposing of products. These rules incorporate a very burdensome requirement known as corporate ‘take-back’ – namely, industry’s obligation to reclaim and dispose of all *new* products put onto the market upon their obsolescence, mostly *at individual company expense*.⁴³ These obligations are based on preliminary conclusions drawn within the EU Green Paper on Integrated Product Policy (‘IPP’)⁴⁴ that were formally adopted by the EU Commission during June 2003.⁴⁵ It reflects an official EU environmental regulatory policy blueprint created largely with the assistance of European environmentalists, which would unilaterally impose on the world’s manufacturers, importers, marketer-distributors and business ‘users’ an expanded obligation of producer responsibility and product stewardship. They are reflected, in part, in the EU’s Proposed Framework Directive on Eco-Design for Energy-using Products (‘EuP’),⁴⁶ the EU Directive on End-of-Life Vehicles (‘ELV’),⁴⁷ the EU Directive on Waste from Electrical and Electronic Equipment (‘WEEE’)⁴⁸ and the EU Directive on Restrictions on the Use of Hazardous Substances (‘RoHS’).⁴⁹

It is quite revealing that each of these pieces of legislation *presumes* and effectively treats the waste from these categories of products, as well as the products themselves, as being potentially ‘hazardous’ to human health and the environment. However, the EU has failed to substantiate its administrative presumption via an objective science-based risk assessment. In other words, it has not demonstrated that the substances utilized in the manufacture of these products or the methods currently employed to dispose of them (which these rules seek to change) have generated ascertainable risks of harm or have resulted in actual identifiable incidences of exposure. In adopting and enforcing these rules, the EU Commission apparently believes that a scientific risk assessment and economic cost-benefit analysis are unnecessary, or perhaps even detrimental to their *political* objectives. It also apparently believes that it has helped EU Member States satisfy their political obligations under the Basel Convention,⁵⁰ an international environmental treaty negotiated largely with the assistance of several large ideological ENGOs such as Greenpeace, Friends of the Earth and the Basel Action Network.

F. Climate Change

The EU has also recently adopted a combination of directives, regulations and decisions designed to reduce what Europeans perceive as a threat progressive warming of the climate poses to human health and the global environment. While many environmentalists and scientists believe that some sort of global climate change is underway, there is *no global scientific consensus* regarding the pattern, magnitude or timing of such a change, or concerning the degree to which that change is being caused⁵¹ by man-made, rather than natural activities and processes. And, despite even the most recent of reports alleging that the warming of ocean currents off southern California reflects global warming attributable to human activities,⁵² these remain only ‘soft’ hypothetical assessments of possible climate change *hazards* rather than any ‘hard’ scientific assessment of probable health or environmental exposure *risks*. Indeed, it has been shown, thus far, that policy-motivated computer ‘modeling inputs’ championed both by the EU Commission and politically influential environmentalist groups⁵³ have been devoid of a rigorous scientific foundation.⁵⁴ Perhaps, as some have suggested, “Kyoto activism and the global warming campaign have less to do with saving the world and more to do with new forms of European protectionism.”⁵⁵

The continued state of scientific uncertainty surrounding global climate change was honestly discussed in the 2002 Economic Report of the President.

We are uncertain about the effect of natural fluctuations on global warming. We do not know how much the climate could or will change in the future. We do not know how fast climate change will occur, or even how some of our actions could affect it. Finally, it is difficult to say with any certainty what constitutes a dangerous level of warming that must be avoided.⁵⁶

Despite these uncertainties, however, the Bush Administration proposed a gradual and flexible approach that identifies realistically achievable goals at reasonable economic cost to address the perceived problem of climate change.

[C]urrent uncertainty surrounding climate change implies that a realistic policy should involve a gradual, measured response, not a risky, precipitous one... concepts such as a worldwide tax on greenhouse gas emissions or a worldwide tradable permit system, sometimes advertised as solutions, are at best useful theoretical benchmarks against which to measure alternative, practical approaches. At worst, they can be a distraction from meaningful, realistic steps forward. Why are such proposals impractical? Because they fail to recognize the enormous institutional and logistical obstacles to implementing any sweeping international program. Institutionally, it is important to learn to walk

before trying to run...*The uncertainty surrounding the science of climate change suggests that some modesty is in order. We need to recognize that it makes sense to discuss slowing emission growth before trying to stop and eventually reverse it...* (emphasis added).⁵⁷

Since at least 1997, many within the American scientific, economic and political communities have recognized that the U.S. would incur prohibitively high economic and social costs if it imposed regulatory limits on U.S. industrial, agricultural, commercial and household greenhouse gas ('GHG') emissions consistent with those required by the Kyoto Protocol.^{58 59} Although members of the European business and intellectual communities have continued to cite the detrimental impact that the high costs of European compliance with the Kyoto Protocol would have upon European industrial competitiveness, employment and consumer prices,⁶⁰ these concerns have been largely 'drowned out' by the powerful European environmentalist lobby. At the same time, there has been a growing economic and scientific realization, even in Europe, that the absorption of those costs by industry and consumers would yield only slight global environmental benefits, even if all nations, including the U.S., enforced GHG emission caps at Kyoto Protocol 2008-2012 prescribed levels:

Despite the uncertainty over how much Kyoto would cost...*one thing is sure: Kyoto will cost and the environment will not benefit from it...The economic cost of Kyoto is very high and its environmental benefits are dubious to say the least...* Dr. Hans Labohm explained that *'The net cooling effect will be infinitesimal.* According to the proponents of Kyoto' Labohm added, 'the cooling effect of the whole Kyoto, comprising all developed countries as initially planned, was not more than 0.02 degrees Celsius in 2050. A European mini-Kyoto will produce a net cooling that is proportionally less (emphasis added).⁶¹

This negative cost-benefit scenario had been previously explained in the 2002 Economic Report of the President:

...There is an unfortunate tendency to treat greenhouse gases—especially carbon dioxide (CO₂)—in a manner analogous to SO₂ [sulphur dioxide] and NO_x [nitrous oxide] [two known pollutants], for which strict quantitative limits have been imposed. SO₂ and NO_x can be controlled by adding equipment to existing facilities. CO₂, however, can only be reduced by either reducing energy use or replacing fossil fuel facilities, equipment, and transportation fleets with ones that use fuels with lower or zero emissions (that is, unless and until capture and sequestration of CO₂ become feasible). *This is vastly more expensive than the end-of-pipe treatment appropriate for SO₂ and NO_x, and it raises concerns about fuel diversity, national security, and the ability to sustain our economic strength and quality of life.*

...[R]educing U.S. emissions to 7 percent less than their 1990 level (the Kyoto target) over the next 10 years could cost up to 4 percent of GDP in 2010—a staggering sum when there is no scientific basis for believing this target is preferable to one less costly. Worse yet, by imposing such high economic costs and diverting limited resources, the Kyoto targets could have reduced our capacity to find innovative ways out of the environmental consequences of global warming.

...A modest, near-term goal to mitigate greenhouse gas emissions [is needed]...*The Kyoto Protocol focused on rather dramatic short-term reductions with unclear environmental benefits. Those reductions risked damaging economic consequences and, in turn, jeopardized the ability to invest in long-run scientific and technological solutions.* A reasonable goal offers insurance consistent with existing climate science *without*

putting the economy at risk. A gradual approach balances the need for mitigation with the need for economic growth to power future innovation. A gradual approach also allows us to adjust as we learn more from the science and are able to take advantage of technologies as they develop. Finally, a gradual goal provides time to develop stronger institutions for a long-term, global solution. (emphasis added).⁶²

In essence, the Bush Administration, in contrast to the EU Commission, has stressed that it sees technology, rather than stringent regulation, as the long-term solution to any climate change problem, and that it is spending \$4 billion a year on incentives for research and development to this end. Even environmental groups have conceded that the Kyoto Protocol will have *no* impact on preventing what they believe to be an impending global warming catastrophe. “The groups themselves concede that the Protocol will only have ‘symbolic’ effect on climate because they believe it is too weak.”⁶³

Notwithstanding these sobering assessments, however, the EU climate change rules, better known as the EU Greenhouse Gas (GHG) Emissions Trading Scheme (‘EU ETS’), proceeded to go into effect on January 1, 2005.⁶⁴ The scheme incorporates each EU Member State’s annual GHG emission ‘cap’ (limit), as established by the Kyoto Protocol, and requires that such limit be enforced at the national level with respect to emissions generated by specific industrial activities undertaken by plants burning fossil fuels such as petroleum and coal.

The EU ETS currently covers energy producers (oil and petroleum refineries and power utilities); ferrous metal (iron, steel and metal ore) producers and processors; mineral processors (cement, lime, glass and ceramic producers); and ‘other’ industrial producers (mainly pulp and paper producers).⁶⁵ Pursuant to this scheme, GHG emitting plant operators must purchase from their governments GHG emissions permits covering their ‘installations’ that grant them the right (‘allowances’) to emit a limited amount of GHGs (one ton of carbon dioxide equivalent) within a specific period.⁶⁶ It is believed that emissions trading will provide companies within these industries with the ability either to earn revenues from selling their ‘below-the-allowance’ GHG emissions (GHG ‘credits’) to other companies or to offset the regulatory ‘costs’⁶⁷ associated with their ‘above-the-allowance’ GHG emissions (GHG ‘excesses’) by purchasing other companies’ credits. It has been reported that there are now emissions trading permits covering 12,000 installations in the 25 EU Member countries.⁶⁸

The EU ETS also subjects these EU industry sectors to GHG monitoring and reporting/ registration requirements.⁶⁹ Further complicating the legal landscape, a number of EU Member States have created their own national trading schemes which go further than the regional program and include additional greenhouse gases (the EU covers only carbon dioxide) and sources of emissions. And, the EU is now contemplating GHG emissions reduction and energy efficiency proposals and related environmental fiscal incentives deemed necessary to satisfy the Kyoto Protocol’s ‘post-2012’ period. They focus on the transportation (automobiles, vessels and aircraft), agriculture, small business, housing (e.g., builders *and* personal households) and waste disposal sectors.⁷⁰ Notwithstanding the recent nuanced appeals of European politicians⁷¹ for the U.S. to join with Europe in addressing what is *perceived* as a threat to international peace and security,⁷² it is certain that these laws *will* adversely affect the cost of living and quality of life for all Europeans and Americans.

V. THE HIGH COSTS OF PRECAUTIONARY PRINCIPLE-BASED REGULATION

A. Compliance, Intellectual Property and Misrepresentation Costs

As is clearly evident, precautionary principle-based regulations, directives and related product standards engender significant compliance costs. They require companies to develop and submit detailed information dossiers about the composition and processing of products in which sensitive technical information and formulae and intended product uses are disclosed. In addition, they require the sharing of such confidential information among all producers, intermediaries, and distributors present along a product's vertical supply chain. In each case, there is little regulators have afforded in the way of intellectual property right protection for valuable company intangible assets.

Furthermore, these regimes require that technical information be contained on detailed product labeling, consistent with national and regional 'consumer right-to-know' laws, whether or not consumer safety issues are involved, and irrespective of whether the environmental performance claims made on those labels can be scientifically/technically achieved. Supporters of such labeling rules argue that they will help European consumers choose the 'correct' products by better understanding the health and environmental hazards accompanying that product's processing or chemical composition. However, it is more likely that the added information will lead to absurdly long, cryptic and misleading labeling that confuses consumers and creates opportunities for consumer fraud and misrepresentation.

B. Eco- and Social Labeling and the Costs of Brand Reputation

What seems obvious, in any event, is that the EU is fostering artificial product and process distinctions and creating consumer expectations in the marketplace that will negatively affect the competitive conditions of non-EU products. In other words, Brussels is acting as a market 'maker'⁷³ rather than as a market 'facilitator' of European consumer preferences in the absence of a general market demand for environmentally friendly products and services:

In its simplest form, [product and process] branding can involve both product differentiation and firm reputation. Brands have special utility for signaling intangible societal attributes, such as animal welfare and non-genetically engineered products. In such cases the consumer has difficulty assessing quality based on consumption and determining whether the product complied with its stated claim...Branding does not mean that the differences are well defined' only that differences exist...[T]he brand allows a separation (differentiation) in the marketplace by quality in the form of intangible societal attributes...
Customers may not be able to measure the quality of a product, say the environmental impact of the Bt event in corn, [but]...[they can measure whether]...due diligence and prudent safety measures have been employed" (emphasis added).⁷⁴

One need only survey the EU Commission's many eco-labeling initiatives to realize the extent of European governments' indirect involvement in the commercial markets.

The EU's labeling rules concerning GMOs, electronics and electrical equipment, toxic chemicals, cosmetics and biocides provide such an example.⁷⁵ The recent EU furniture eco-label program arguably provides another example of a governmental attempt at product branding. A preliminary report prepared for the Commission on the feasibility of a new EU furniture eco-label recommends that sustainable forest management (SFM) certification be included as an indispensable criterion for award of the label. The report however recognizes that, because

“Purchasers...have shown themselves to be profoundly uninterested in Eco-labels, [as] we know [of] no real demand for an EU Eco-label on furniture” (emphasis in original),⁷⁶ it is likely that private demand needs to be created at the EU level. “[I]f [private] demand does not exist, it can be created through awareness activities or through procurement requirements in the case of public procurements.”⁷⁷

According to the report, this would be possible by harnessing the ‘fashion’ dimension of the furniture market through creation of premium-branded products that would appeal to consumers because they reflect “*fitness for use linked to ethical values*” (emphasis in original).⁷⁸

[On the one hand,] [t]he furniture industry is a fashion industry where fashion will never be governed by a label... [Yet, on the other hand,]... [t]he market shares of furniture that are clearly identifiable as fashionable goods should be identified in a market study. Ecological design can to a certain degree pick up changing trends and adopt to them. At least one of the documented best practice-examples indicates that new design and environmental product qualities are compatible aims (emphasis in original).⁷⁹

In fact, the report’s authors believe that such a premium brand eco-label could effectively “compete with all existing brand names of big retailers or manufacturers”:

Only about 20% of all furniture in the EU is sold under a brand name, the rest are no-name products. Brand names have a high attractiveness in the market and generate higher revenues. Thus the new EU label will compete with all existing brand names of big retailers or manufacturers... ‘An eco-label can be a success if associated with a brand or a high developed environmental policy and communication (EMAS, ISO 14000...)’... The Eco-label as a premium... [can be] display[ed] [by] firms... on a product or product line [to] thereby indicate their responsibility and contribution in the environmental field. This strategy may be useful when attracting new, or retaining and reassuring existing, ‘green’ consumers (emphasis added).⁸⁰

By use of this approach, EU companies would be able to differentiate their wood and furniture products from, and thereby effectively compete against, lower priced foreign exports. “Price competition from outside the EU can be offset by strategies that closely couple product and image value of furniture. ‘Differentiate from non-EU imports, particularly those from low wage rate economies’” (emphasis in original).⁸¹ However, there would be no requirement to scientifically prove the environmental claims made on such a label.

C. Tort Liability Costs

If the precautionary principle became a formal U.S. legal standard, companies would be obliged to satisfy a broad, affirmative, forward-looking legal ‘duty of care’ as a precondition to securing market authorization and market access for their products. This “duty of positive obligation...requires...industry actors to be fully informed about the possible consequences of environmental change,”⁸² i.e., companies are put on advance notice that they must not engage in activities currently that may potentially trigger unascertainable but serious risks of harm sometime in the future. The precautionary principle applies to commercial participants at all levels of the global product supply chains, each of which must show that they have followed ‘best practice’ in designing new products from conception even if ‘best practice’ is never really known because it is still in the process of evolving. This has been interpreted to mean that an economic actor would be deemed not to have satisfied its duty of care “even if best practice and appropriate regulatory rules [were] followed.”⁸³ Companies must endeavor to ensure that the manufacturing methods they employ and the potential uses to which their products or substances are ultimately

placed, even if presently unknown, will have as minimal a health and environmental impact as possible (without regard to ‘reasonableness’), irrespective of the costs to industry.⁸⁴

Within the transformed U.S. tort system precautionary principle advocates envision, legal liability would be triggered merely as the result of a *prima facie* breach of a broader obligation/responsibility imposed by *civil* law, and the failure to satisfy a greater evidentiary burden of proof normally imposed under the *criminal* law. Thus, liability for violation of precautionary principle-based regulations would be premised on, but would go beyond the U.S. common and statutory law of negligence, strict liability, ‘products liability’ and public nuisance.

A case in point is Articles 5 (‘Preventive Action’) and 8 (Prevention and Remediation Costs’) of the recently enacted Commission Directive on Environmental Liability,⁸⁵ which implements the EU ‘polluters pay’ principle. Article 5 provides that, “Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator shall, without delay, take the necessary preventive measures.” Article 8 provides that, “The operator shall bear the costs for the preventive and remedial actions taken pursuant to this Directive. Judging from its other provisions, strict liability would be favored over fault-based liability (negligence)⁸⁶ to prevent ‘environmental damage’ from “certain high-risk activities [such as] manufacturing, transport and storage of dangerous substances, waste management, discharges of substances into ground or surface water, etc.”⁸⁷ “Businesses primarily affected are those involved in traditionally polluting activities, such as plants releasing heavy metals into water or into the air, installations producing dangerous chemicals, landfill sites and incineration plants.”⁸⁸

The White Paper upon which this directive was based, further explains the objective and scope of this liability regime, as follows:

The objective of nearly all national environmental liability regimes is *to cover activities that bear an inherent risk of causing damage...[i.e.] (dangerous) activities...[and to]...link...the liability regime...with the relevant EC legislation on protection of the environment...The activities to be covered, with respect to health and property damage and contaminated sites, could be those regulated in the following categories of EC legislation: legislation which contains discharge or emission limits for hazardous substances into water or air, legislation dealing with dangerous substances and preparations with a view (also) to protecting the environment, legislation with the objective to prevent and control risks of accidents and pollution, namely the IPPC Directive and the revised Seveso II Directive, legislation on the production, handling, treatment, recovery, recycling, reduction, storage, transport, trans-frontier shipment and disposal of hazardous and other waste, legislation in the field of biotechnology and legislation in the field of transport of dangerous substances...some of these activities, such as activities with respect to genetically modified organisms (GMOs), are not dangerous per se, but have the potential, in certain circumstances, to cause health damage or significant environmental damage. This could be the case, for example, in the event of an escape from a high-level containment facility or from unforeseen results of a deliberate release. For this reason it is considered appropriate for such activities to come within the scope of a Community-wide liability regime.*⁸⁹

Furthermore, it emphasizes how the strict liability regime envisioned would “mak[e] people realise that...[in addition to being responsible]...for the possible negative effects of their operations...on other people’s health or property...they are also responsible for possible consequences of their acts with regard to nature. This expected change of attitude should result in an increased level of *prevention and precaution*” (emphasis added).⁹⁰ Moreover, it would encourage public interest (environmental and consumer) groups to commence actions directly

against defendants “as if [they] were taking over the role of the public authority for the specific case... where the public authority is thought to be in default.”⁹¹

Were the precautionary principle to become U.S. law, it would shift the legal burden of proof from government to industry by requiring that industry produce a sufficient quantity of testing evidence that *also* qualitatively persuades government regulators of a product or substance’s ‘safety’ or ‘harmlessness.’⁹² In essence, industry must overcome a higher threshold of persuasion (legal standard of proof) than that currently called for in civil litigation within the U.S. (i.e., ‘proof beyond a reasonable doubt’, as found in U.S. *criminal* litigation, rather than ‘proof by preponderance (or balance) of the evidence’). “Precaution means, in effect... that one is guilty until proven innocent when tampering with the environment in... [potentially]... risky ways.”⁹³ This would, in effect, create a rebuttable presumption (an inference) of negligence in favor of the plaintiff with merely the presentation of circumstantial evidence of the defendant’s failure to act reasonably, consistent with the disputed legal doctrine of *res ipsa loquitur*.⁹⁴

One need only look to the proposals contained within the EU Commission’s Green Paper on Products Liability — (which reviewed how an earlier EU Directive on Products Liability⁹⁵ had been implemented in the Member States) — to see how the precautionary principle would likely impact producer liability in U.S. tort litigation.

One of the proposals says that if the plaintiff proves that he has been hurt and that the product is defective, causation should be inferred. The burden should be on the defendant to show that his product *didn’t* cause the harm. There has not been anything exactly like this in the United States. There is a doctrine called *res ipsa loquitur* which allows circumstantial evidence to be used to infer defectiveness of a product, and sometimes logical contortions have been made to jump over causation issues, but that proposal has never really taken root. [A] young professor from England who was championing this proposal... said, “We need this change because we do not have adequate provision for discovery from defendants. We do not have the system that you have in the United States where, in a personal injury case, a victim can obtain relevant documents from the defendant. So in light of that, let the defendant prove that his product didn’t cause harm” (emphasis in original).⁹⁶

Moreover, American technology developers, product manufacturers and designers and substance formulators would be prevented from claiming that they had exercised reasonable care by following then-prevalent ‘customary industry practices’⁹⁷ or ‘state-of-the-art’ technical/scientific standards, when responding to a products liability or toxic tort action based on negligence or strict liability.⁹⁸ The so-called ‘state-of-the-art’ defense provides that, “There is no liability for the producer if the state of scientific or technical knowledge at the time the product was marketed made the defect in the product undiscoverable.”⁹⁹

State-of-art or “development risk really has two parts. One part is... where you could have known about a risk... But there’s another part. Suppose... you know what the risks are but there is no way to avoid that risk under current technology. Yet it’s a lawful product. It’s a product that is lawfully sold. In the United States and most of our courts, that is a defense as well. It really means that under science there’s a product that has certain risks but there is no knowledge of how to avoid them. It would seem helpful in Europe to have that concept in the law, too, but it is not there under the black letter, as development risks are currently defined in the code, because when the code was established those who were crafting it did not want to address that issue”.¹⁰⁰ “[S]ome [American] states [,in fact,] have established statutory presumptions that a product is *not* defective¹⁰¹ if its design conforms to the ‘state of the art’”, which would no longer be available (emphasis added).¹⁰²

As the EU White Paper on Environmental Liability (2000) indicates, however, although the ‘development risk’ defense (or, at least, one part of it) was previously provided for in Article 7(e) of the EC Products Liability Directive, political pressure later mounted to abolish it, consistent with the precautionary principle.¹⁰³ The prior 1999 Green Paper on Products Liability had also “proposed abolishing the *development risk defence*...”¹⁰⁴ Apparently,

Back when [that] code was established, there had been “a very strong feeling that manufacturers of products should be liable even if they neither knew nor could have discovered a risk, particularly with respect to pharmaceuticals and chemicals. On the other hand, people from those industries and others said it was unfair to impose liability on a producer that neither knew nor could have discovered a particular risk. It would deter innovation and willingness to put new products on the market, particularly in the pharmaceutical area. In Europe they sort of split the baby. They put a development risk in the code, but said if a certain country didn’t like it they didn’t have to take it. Most of the countries adopted the development risk defense, and it continues to be under attack with the same fundamental policy issues.”¹⁰⁵

Following removal of this defense, producers would again be held liable “for defects in their product that could not be discovered at the time the product was marketed.”¹⁰⁶ Since this defense incorporates economic cost-benefit analysis, its loss would systematically predispose the legal and economic outcome¹⁰⁷ of tort cases in favor of plaintiffs, and thereby stifle innovation.¹⁰⁸

We can show in the United States that our experiment in getting rid of that defense failed. The Supreme Court of New Jersey, in a case called *Beshada v. Johns-Manville Products Corporation*, in the eighties got rid of it. In the context of an asbestos case the Supreme Court of New Jersey said that a manufacturer could be subject to liability if it neither knew nor could have known about a risk. The Supreme Court of Louisiana, in a case called *Halphen v. Johns-Manville Sales Corporation*, said the same thing. There was a decision in Montana and a decision in Hawaii that said the same thing. *Most of the cases were either retracted or confined to asbestos by the courts themselves, or legislatively overruled.* The Supreme Court of New Jersey pulled back and confined it to asbestos, and then its legislature came in and overruled it. The same thing happened in Louisiana where a lower court attempted to apply the rule of *Halphen* to escalators, and all escalators in Louisiana came to a halt, and people who had difficulty climbing stairs had difficulty climbing stairs. *We have learned from our experience that abolishing the development risk defense has social consequences.* We shared that experience with the Commission that put out the Green Paper” (emphasis added).¹⁰⁹

The duty to exercise ‘precaution’ during the course of one’s activities to the extent they involve a *foreseeable risk to foreseeable parties* seems already firmly entrenched within the U.S. case law on negligence. In addition, courts have imposed on parties a duty to exercise precaution to prevent the negligent acts of third persons from causing *foreseeable* harm to others, especially if serious risks of harm are likely to occur. The adoption of the precautionary principle by U.S. federal and state regulators, however, would arguably serve to overrule U.S. case law. It would extend the duty to exercise precaution to new activities and parties for purposes of preventing suspect substances, products and technologies from causing *unforeseeable* harms to the public at large.

The prospect of greater economic and social costs resulting from more prolific regulation and more frequent litigation and damage awards induced by these changes should not be underestimated:

[I]n Europe, little thought is given to the possibility that adding more regulation and liability might not be in consumers' interests. Obviously, in the case of regulation, *when you increase regulation, roughly speaking, you increase costs and decrease choices, which might not be what the consumers would particularly prefer. Similarly, in the case of liability, Europe has gone through the same trends that the United States has—i.e., a shift towards strict liability over the last fifty years. However, it is not clear that strict liability advances consumers' interests, and it is not clear that it lives up to its advance billing of cost internalization.* For example, strict liability does not deter any better than fault liability, because you cannot deter what you cannot know or foresee. *Strict liability does of course decrease activity levels, providing less of the products or services that consumers may want. Similarly, strict liability is not particularly good at risk spreading, one of its other principal justifications.* It is basically a very inefficient one-size-fits-all insurance policy.” (emphasis added).¹¹⁰

One need only recall the “massive liabilities [previously] imposed on Dow Chemical because of silicon breast implants to see how the changes in U.S. law called for by precautionary principle advocates will impact the tort liability of American companies. [In that case,] *liability was imposed despite the almost complete lack of evidence meeting traditional scientific standards that the implants in fact caused the chronic fatigue syndrome and other ailments they were accused of causing*” (emphasis added).¹¹¹

Even without regard to the precautionary principles' challenges, U.S. manufacturing, refining, extracting, energy and waste-related services companies and their downstream suppliers are already reeling from the current tort litigation 'lottery' created by ambitious American trial lawyers. If, then, the Bush Administration is to take the pragmatic approach to tort reform it has advertised, it must also prevent a formal precautionary principle from hijacking American risk regulation and tort law.

Given Europe's aversion to risk, it is not surprising that the EU White Paper on Environmental Liability concluded that the overall economic impact that precautionary principle-based environmental regulation has had on the international competitiveness of European industry, especially small and medium-sized businesses, has been minimal. The Commission has never professed to be knowledgeable about how businesses operate, let alone how difficult it would be for businesses to recover high regulatory, administrative and liability costs in the pricing of their products. What this reaffirms, however, is the enduring political influence of ideological environmental and consumer groups in the European policy-making process. Indeed, a review of other EU Commission documents and the anecdotal evidence provided by European industry tells a decidedly different story.

D. Insurance Costs Related to Development Risk

Insurance law experts also have noted the potentially adverse impact that the precautionary principle would have on the current U.S. insurance system. That system is based on the late nineteenth century social paradigm of 'solidarity-based governance', which has prevailed in the U.S. since the New Deal era. The solidarity approach arose in place of what was then the 'providence' or 'act of God' paradigm.¹¹² It sought to address the problem of industrial work accidents by providing truly innocent victims with compensation without regard to assessment of fault. It also promoted the “sharing of risks across society in the name of reducing the overall suffering of the population[.]...recognized accidents as ordinary features [risks] of modern life to

be actuarially predicted[,],...and ameliorate[d] systematic losses through technology and [balanced¹¹³] regulation.”¹¹⁴ In other words, the solidarity approach “placed great emphasis on scientific knowledge to predict the extent of losses and craft regulatory approaches toward ameliorating them.”¹¹⁵

Precautionary principle advocates seek to replace that system with a new ‘safety’ paradigm of prevention. The safety paradigm focuses on new types of catastrophic environmental threats that loss spreading and balanced regulation would arguably be unable to address. These include global warming and the potential impact of hazardous chemicals and biotech foods:

In place of the repetitive accidents, e.g., industrial injuries and automobile accidents, the developed world is increasingly politically focused on what Ewald calls ‘the return of disasters’. These new threats,...advanced technology disasters and medical errors...do not lend themselves to the dominant strategy of solidarity, i.e., compensating victims regardless of fault...[T]he safety paradigm is informed by awareness of the uncertainty of scientific knowledge and the inability to predict certain kinds of catastrophic events. This lends itself to what has been called in environmental policy the ‘*precautionary principle*’ i.e., the notion that when catastrophic losses are possible and scientific knowledge is uncertain the most appropriate risk policy is not to take the risk at all (emphasis added).¹¹⁶

Proponents of this new paradigm dismiss probabilistic risk theory as unreliable to predict and control catastrophic harms in advance. They argue that the actuarial bases underlying risk prevention and control do not apply to certain catastrophic hazards, which, because of their irreversible and/or irreparable nature are fundamentally different than industrial and auto accidents. Such bases require clear, relatively certain and available information upon which risk management decisions can be made, and the legal and social deterrent effect of after-the-fact liability for harm.¹¹⁷ Consequently, in their view, risk theory cannot provide the “efficient” level of prevention or advanced prediction of future costs of harm necessary to address the financial and social dimensions of uncertain future catastrophic events.

According to at least one insurance law expert, such thinking “threatens an U.S. insurance system that is based on the idea that insurance” involves fixed premiums paid in advance for guaranteed benefits in the event of loss.”¹¹⁸ In his opinion, this would precipitate a fundamental systemic change that would entail the incorporation by insurers of ‘post-loss assessments’ into their insurance contracts:

Early insurance arrangements addressed the problem of uncertainty by incorporating post-loss assessments, so that the premiums paid by members of the insurance pool were adjusted to reflect recent losses. The precautionary principle counsels us to return to this old-fashioned approach. Assessment insurance is tailor-made for the uncertainties upon which the precautionary principle rests.¹¹⁹

This means, in effect, that the cost of insuring against possible future catastrophic losses would no longer be based solely on fixed premiums. Rather, they would also depend on the levy of an additional charge following the occurrence of an inevitable and non-preventable catastrophic event that is determined based on a final assessment of the resulting damages. And, these costs could conceivably multiply in the absence of a reliable post-loss assessment mechanism, if those who are forced to suffer the losses on their own (i.e., the uninsured) demand that industry be subject to increased liability and/or that government clamp down on entrepreneurial activity via increased regulation.

Considering that government's competence in post-loss assessment is relatively untested, this insurance law expert believes that "the result of clamping down will be a series of expensive Maginot lines against risk, each of which...protect[s] society against a known risk, while doing nothing to protect society from the unknown."¹²⁰ It is quite possible, therefore, that "the efforts taken in the name of the precautionary principle may even increase our vulnerability to the unknown."¹²¹

According to this expert, drugs and other health technologies present two cases where the current insurance system's failure to adequately address 'development risk' will ultimately result in greater regulatory and insurance costs. "Development risk [is] the risk that a product will produce a kind of harm that is not foreseeable at the time of design but for which the manufacturer is liable under the principle of strict liability."¹²² In his opinion, liability insurers are likely to design insurance contracts covering such activities in a manner that avoids development risk (i.e., through exemptions or limitations in coverage). As a result, the pool of insurance monies available to cover catastrophic losses suffered by society will be correspondingly reduced. If, the partially insured businesses operating within these sectors are then forced into bankruptcy because the catastrophic liability claims they face exceed their policy coverage amounts, there will be even fewer funds available to compensate society's victims for losses suffered as the result of such events.

The real concern, however, is that the public and media hysteria created by successful environmental NGO fear campaigns will exacerbate the losses already suffered, and cause the "uncompensated victims to clamor for criminalization of environmental law and to call for [more] extreme [regulatory] efforts to prevent loss in the future."¹²³ In the words, of French insurance expert Francois Ewald: "The appearance of the precautionary principle is registered in the context of victims who are no longer satisfied with compensation, no matter how large, but who are only satisfied when those responsible are held criminally liable."¹²⁴

Other legal academics have proposed an alternative mechanism to facilitate the shift from public risk bearing to private risk bearing (internationalization of potential environmental externalities) called for by the precautionary principle — the requirement of costly assurance bonds.

In application, a bond is a declaration of ex-ante liability rather than the current practice of the burden placed on harmed parties to raise claims ex-post. The bond would be held to compensate those affected by the (ex-ante) immeasurable harm or until the uncertainty of risk had been reduced to commercially viable levels.¹²⁵

In effect, companies would be obliged to post a bond in advance in an amount equal to the 'worst case scenario' losses, in order to later engage in an economic activity deemed by regulators and/or civil society to pose uncertain environmental or health risks. Over time, the bonding level would decline if the presumed losses failed to materialize or the uncertainty factor was reduced. But, in the end, the burden will be placed on all companies "to provide evidence that the expectation of harm has declined and that their capital should be returned."¹²⁶

According to these experts, bonding serves several purposes:

First and most importantly it pushes incentives ahead in time. Funds are posted ex-ante. Second, bonding is [an] incentive...[different from the threat of litigation and large fines]...compatible [with] making the producer of the risk bear the risk. Third, bonds are insurable creating a market for the risk and reducing the cost on the firm. Fourth, bonding rates are dynamic. As information is revealed, through additional research or post-market surveillance, over time and risks are reduced, bonding levels would be ratcheted down reducing the burden on the

firm. Finally the firm adapts its capital plan because of the explicit and ex-ante identification of the risk. Theoretically, the design is to reduce cavalier behavior by the firm without destroying the incentives for innovation.¹²⁷

Although multinational corporations could arguably absorb the expense of posting an assurance bond, small and medium sized companies would likely be devastated if compelled to do so. The cost of bonding would likely be disproportional to the size of most SMEs in terms of employment, sales revenues generated and the contract value of activities engaged in. And, it would also likely consume hard-to-come-by working capital funds that are indispensable to research and development and maintaining essential business operations and employment and a positive community reputation. Once again, one need only look at the evidence to discern how the EU will soon incorporate the requirement of purchasing financial security instruments such as assurance bonds into its 'polluters pay' liability directive.¹²⁸

E. Insurance Costs Related to Climate Change

Apart from product development risk, the inability of the current insurance system to address many of the uncertain possible future economic and social losses arising from global warming-induced climate change presents another such example. The consulting arms of international reinsurance companies such as Munich Re, Swiss Re and Marsh McLennan are busily advising multinational companies of the need to mitigate their potential exposures to environmental liabilities and financial costs surrounding climate change risks. At least one American academic has estimated that "\$2.7 trillion of the \$10 trillion U.S. economy is susceptible to weather-related loss of revenue, meaning that an enormous number of companies have 'off-balance sheet' risks [unaccounted for in a financial accounting sense] related to climate. This could wound corporate America in a lot of ways, particularly as insurance companies discover this new area of risk."¹²⁹

Their sales pitch generally proceeds as follows:

As investors and insurers demand better disclosure of environmental liabilities and better corporate risk management, more central control of global environmental risks is required. Thus, companies need to have a comprehensive system to identify, assess and mitigate environmental risks across their global operations, and understand their financial impacts. Insurance companies can not make informed underwriting decisions without better information about all risks, including systematic environmental risks and liabilities like climate change.¹³⁰

It is then followed by what appear to be scientific and economic justifications:

Climate Change will have a variety of *financial impacts*: *Health Insurance* - 'Climate change will lead to a resurgence in infectious disease unseen since the 19th century' - Paul Epstein, Harvard Medical School; *Property Insurance* - 'World - wide economic losses due to natural disasters appear to be doubling every ten years, & have reached \$1trillion over the past 15 years' - *Munich Re* (3/2002); *Impact on profits* - 'Companies will incur significant, & differing, *material increases in operating costs* due to increases in energy prices and GHG effects on suppliers' - Martin Whittaker, Innovest; 'In a carbon-constrained future, climate change becomes a key *financial issue*' - John Fitzpatrick, CFO, *Swiss Re* (emphasis added).¹³¹

Natural disasters brought about by climate change are forecast to cost the finance industry 85 billion pounds per year within the next 10 years, according to a UN Environmental Program Finance Initiative (UNEPFI) report.¹³² Climate change affects our business in other ways. It has the

potential to create uncertainty for morbidity rates, influencing life and health reinsurance business, [to] affect the future performance of investments and [to] create new liabilities for our corporate clients...Reinsurers need to anticipate what the impact of activities today will have on the business of tomorrow... Our goal is to understand the risks, to adapt business and assist clients through knowledge sharing and risk solutions. Supporting efforts to reduce greenhouse gas emissions is part of the process because it can reduce the uncertainty generated by climate change.¹³³

But, a closer look at European reinsurance company activities reveals what they are really after. They are seeking to avoid or mitigate their own liability for possible future direct and indirect reinsurance losses to which they are subject under their current insurance and reinsurance contracts, just as they are seeking to do with respect to development risk. Initially, this can be accomplished by spreading the potential insurance and financial risks and higher related costs to their American competitors, and ultimately to their American clients. European reinsurers can also hope to influence human settlement patterns and catastrophe risk management practices through risk-adequate insurance rates.¹³⁴ “Risk-adequate insurance rates and conditions may serve as an incentive to encourage loss prevention and guarantees the financial compensation for catastrophe losses.”¹³⁵

For example, European reinsurance companies have sought to reduce their primary insurance and reinsurance property and casualty coverage of new policies that secure existing or newly planned commercial and residential real property assets located along densely populated, storm-prone European and U.S. coastlines. These limited and reduced coverage policies are likely to negatively impact property development, reduce the pool of available insurance funds, and drive up national and regional insurance rates beyond the reach of many European and U.S. property owners. As a result, remaining owners will then be forced to bear catastrophic losses from natural disasters on their own (with limited or no insurance), and, arguably this will lead them to demand immediate government action to cover their losses. That action will likely entail holding greenhouse gas (‘GHG’) ‘polluting’ industries responsible for their past GHG emissions pursuant to a precautionary principle-based strict liability regime, and governmental enactment of stringent hazard-based regulations to restrict GHG emissions in the future. Consider:

Most policies covering natural disasters are renewable on a yearly basis. When risks become too expensive, insurers can simply walk away...If climate change starts inflicting losses, insurers will again head for the exits. Just such insurer flight has already caused problems in North Carolina’s Outer Banks and in parts of New York’s fabled Hamptons, [let alone along the Florida coastline] where coastal storms are eating up homes and businesses. When insurance companies quit these high-risk places, the burden shifts to banks. But they don’t have the same freedom simply to cancel mortgages and loans. What will happen to the markets if banks start demanding insurance for weather-related events that is either prohibitively expensive or completely unavailable?¹³⁶

As noted above, the projected increases in insurance costs derive from both direct and indirect risk sources. Direct risks include climate-related physical impacts, interruptions in production, changes in market demand and changes in market supply and/or production costs. Indirect risks include GHG regulatory costs, negative impacts on company reputation and the risk of litigation.¹³⁷ The German reinsurance industry has estimated the potential market value of both types of risks to be between U.S.\$ 210-915 billion globally, and for this reason, has recommended that climate-related risks be included in company debt ratings.¹³⁸

However, because “it is difficult to quantify the actual and future [long-term] impacts of climate change on catastrophe losses”, European reinsurers have focused their attention instead on

the more expensive shorter-term indirect risks. Even before the EU GHG emissions trading regime entered into force in January 2005, *regulatory risks* had been identified as the most significant:

Given the magnitude of the EU scheme and the potential pace of introduction – one might note an implementation time of less than 5 years in the EU – in combination with a lifetime of over 40 years of technical equipment in several sectors, GHG emissions should be assessed as risks in other nations as well... The allocation of allowances to installations covered by the emissions trading scheme equals the setting of emission targets and is thus one of the most crucial aspects of the design of the EU-ETS. *Installations emitting more than they can 'pay' with allowances face substantial financial penalties: 40 euro per excess ton of CO₂ from 2005-2007, and 100 euro per excess ton of CO₂ equivalent in the period 2008 –2012... Monetary impacts on companies may occur in the short-term due to price fluctuations for CO₂ allowances and/or mitigation credits (emphasis added).*¹³⁹

And, predictably, European reinsurers have discovered additional indirect insurance risks necessitating new insurance products that will ultimately be subject to coverage limitations. For example, they have alerted corporate directors and officers of the growing risk that they may be subject to liability from shareholder derivative suits for failing to effectively manage their company's carbon emissions consistent with GHG emission regulations. According to Swiss Re, the second largest reinsurance company in the world,

[W]e were the first in the industry to identify and act upon the potential climate change related risks in directors' and officers' (D&O) insurance... *While the company does not presently plan any restrictions, we are making clients aware that directors and senior managers may in the future be held responsible if their companies fail to manage their carbon liabilities effectively or to comply with emissions regulations (emphasis added).*¹⁴⁰

What this really means, however, is that,

[T]hey may be liable for damages... if insurers like financial giant Swiss Re start changing the insurance policies that insulate directors and officers from the costs of lawsuits from the actions of their corporations... Chris Walker of Swiss Re describes how this might come about with regard to climate change. He notes that energy giant Exxon/Mobil accounts for roughly 1% of global emissions, and has aggressively lobbied against any efforts to reduce greenhouse gases. 'So', says Walker, 'we might then go to them and say, since you don't think climate change is a problem, we're sure you won't mind if we exclude climate related lawsuits and penalties from your D&O insurance.' Swiss Re recently set the stage for such action by sending a questionnaire to its D&O customers inquiring about their company's strategy to deal with climate change regulations.¹⁴¹

Indeed, Swiss Re was reported to have "announced in 2002 that it would withdraw liability coverage from executives at companies that fail[ed] to adopt adequate climate change policies."¹⁴²

Furthermore, these companies have endeavored to generate new demand for renewable energy and less carbon-intensive energy sources and promote new insurance and investment vehicles (or hybrid products) which their affiliates can underwrite, invest in, and/or finance in support of sustainable development.¹⁴³ Electrofinance is one such financial product:

Electrofinance combines property-casualty insurance, electricity serviced, and an annuity into a single product, whereby any savings from reduced electricity bills due to aggregated demand and increased efficiency goes either into the annuity portion or to pay down a low-interest, long-term loan on a photovoltaic system...*Electrofinance [is] a product that could prove attractive to insurance and other financial service companies purely for business reasons...* What seems clear is that *the best way to spur the American insurance sector to action is to show them that such activities can rapidly provide a profit through new business opportunities or through loss mitigation* (emphasis added).¹⁴⁴

These companies have sought to render consulting services to multinational companies that focus on carbon risk mitigation and consumer ‘carbon branding’. These services have been advertised as providing companies with the means to develop an internal governance system to reduce and offset their GHG emissions regulatory requirements.

In essence, European reinsurance company climate change-related activities should be viewed for what they really are — as a financial enterprise aimed at generating new sources of premium and non-premium income — and not as a serious attempt to save the global environment. “Carbon reduction must be seen only as an incidental benefit. In the past few years, many new avenues have opened for insurers to earn those profits as lines between insurance, banking, and other services begin to blur.”¹⁴⁵

Unfortunately, for American businesses, in order for these financial opportunities to multiply for European insurance and reinsurance companies, precautionary principle-based regulation, insurance and liability law must be exported from Europe to the United States.

F. D&O Liability and the Business Judgment Rule

It would appear that, through their words and deeds, international reinsurance companies such as Swiss Re, Munich Re and Marsh & McLennan are putting their multinational clients on notice about the potential D&O liability they may incur under U.S. common law because of their directors’ and officer’s actions *or* inaction. Such ‘covered’ liability could be triggered, for instance, as the result of a board’s gross negligence in rendering a business decision. Alternatively, it could attach as the result of a board’s failure to remain adequately informed of and attentive to available and relevant information which could help it to decide how to mitigate company environmental litigation and regulatory risks, such as those that may be related to global climate change.

These reinsurers may also be admonishing companies that their D&O policies may, in the future, no longer cover director liability for breaches of the fiduciary ‘duty of care’. For example, they may decide to raise premiums or to limit or exclude coverage whether or not a company director or officer directly and personally participated in the commission of a tortious or illegal act in the course of fulfilling company responsibilities (e.g., a violation of an environmental statute). However, reinsurers well recognize that legal liability for such violations will not usually attach as the result of poor or negligent business judgment (and D&O coverage triggered), unless there is direct officer or director involvement in the suspect act and a failure of board oversight.¹⁴⁶ One need only review and analyze the current U.S. case law surrounding the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA¹⁴⁷) to see through these reinsurers’ hollow warnings about the broadening scope of director, and hence, corporate liability.¹⁴⁸ However, as with other areas of U.S. law, the current case law in this area is in the process of evolving and should be closely monitored.¹⁴⁹

What these reinsurers may also be saying is that the corpus of available and relevant information for which directors and officers of public companies should be held responsible in the

future will include knowledge of the myriad activities conducted by their many small and medium-sized suppliers/contractors/agents. Companies have already been held responsible for their failure to systematically monitor U.S. federal environmental statutory violations committed by their subsidiaries about which they should have been aware.¹⁵⁰ Thus, according to these reinsurers, it would not be illogical to extend this information-gathering requirement so that it encompasses a review of *all* company supply chain activities. In their view, this would motivate companies to develop and implement internal governance systems that can track and promote more environment-friendly supply-chain management practices consistent with sustainable development. In other words, it would force multinational companies to dictate how their small and medium-sized suppliers should conduct their daily business operations.

Pursuant to such a requirement, directors and officers would also need to remain attentive to and ‘enlightened’ about emerging foreign regulatory trends and product standards, policies, and proposals, and to keep current regarding the status of ongoing intergovernmental regulatory and standards processes. D&O liability could thus arise in the absence of such knowledge, where it is shown that the board’s inattentiveness or indecision prevented it from taking measures to reduce company climate change risk which, in turn, results in regulatory violations and a significant economic loss to the company. This would include failures to consider foreign environmental regulations such as the recently implemented EU GHG emissions trading and polluter’s pay liability regimes, as well as, any U.S. state and regionally (e.g., Northeast State) imposed *or* proposed GHG emissions cap legislation. And, directors may even be held responsible if they fail to remain abreast of the current interstate litigation between state attorneys general over the Environmental Protection Agency’s authority to regulate GHG emissions.¹⁵¹

Furthermore, precautionary principle advocates and environmental investors seeking more corporate accountability would like to extend such a broad knowledge mandate to other company activities deemed intrinsically hazardous to human health or the environment – even in the absence of scientific proof of possible harm. By putting companies on notice about the potential hazards posed by their continued production and/or use of chemicals deemed hazardous and the products containing or processed with them, or by pharmaceuticals, cosmetics or genetically-modified organisms (‘GMOs’), a board would be hard pressed not to establish an extensive internal process of information-gathering. Under penalty of potential liability, they would have to engage in a regular pattern of decision-making that would raise issues related to product design, manufacturing, servicing, reclamation, recycling and/or disposal (i.e., product stewardship in the auto, appliances, electronic and electrical equipment and computer industries).

In each case, if director ignorance, inattentiveness or indecision results in a failure to consider and/or act against potential future regulatory liability and related economic loss, corporations, directors and officers could not rely on the ‘business judgment rule’ (‘BJR’) as a legal defense. This would appear to be precisely the message that private ‘sustainability’ indexed and mutual funds¹⁵² and socially and environmentally focused state pension and investment funds have been endeavoring to convey¹⁵³ through their filing of shareholder resolutions.¹⁵⁴

Decisions of this type, even if they result in liability, however, have traditionally fallen *within* the province of the business judgment rule. Pursuant to this common law doctrine, courts have typically deferred to the business judgment of directors, as long as they *acted* in good faith, with loyalty to the corporation and on an informed basis (with care).¹⁵⁵ “Although the [BJR] comes into play with respect to all three, it is most intimately associated with the duty of care.”¹⁵⁶ If applicable, the BJR can serve as a defense to reduce director liability for mismanagement and breach of their duty of care. Implicit within this defense is the recognition that not all director decisions will benefit the corporation or appear to be prudent. Courts will not second-guess business decisions by directors *provided the directors follow appropriate procedures in making the decision*:

As the Delaware Supreme Court has defined it, the duty of care requires directors to act with the same ‘amount of care which ordinarily careful and prudent men would use in similar circumstances’¹⁵⁷ . . . By invoking the language of reasonable care, the duty of care seemingly would be violated whenever directors act negligently. At the same time, however, if the business judgment rule does anything, it insulates directors from liability for negligence. . . . The rule does so by providing a *presumption that the directors or officers of a corporation acted on an informed basis, in good faith, and in the honest belief that the action taken was in the best interests of the company*. As a result, even clear mistakes of judgment will not result in personal liability (emphasis added).¹⁵⁸

At least one legal commentator has argued that, based on this and other cases, the BJR should be construed as “an abstention doctrine.”¹⁵⁹ In his view,

[T]he rule’s presumption of good faith does not state a standard of liability but rather establishes a presumption against judicial review of *duty of care* claims. Under it, the court abstains from reviewing the substantive merits of the directors’ conduct unless the plaintiff can rebut the business judgment rule’s *presumption of good faith*” (emphasis added).¹⁶⁰

In other words, the abstention doctrine recognizes that certain preconditions (rebutting the presumption of good faith) must first be satisfied before a court will undertake a review of the substantive merits of directors’ decisions, even if that decision might involve dismissal of a shareholder derivative suit.¹⁶¹ Perhaps the clearest and most recent expression of the traditional formulation of the BJR was articulated by the Delaware Supreme Court in the recent case of *Brehm v. Eisner*.¹⁶² In that case, “the court explicitly rejected, as ‘foreign to the business judgment rule,’ plaintiffs’ argument that the rule could be rebutted by a showing that the directors failed to exercise ‘substantive due care.’”¹⁶³ Instead, the court found that the BJR requires only ‘process due care’:

Courts do not measure, weigh or quantify directors’ judgments. We do not even decide if they are reasonable in this context. Due care in the decision-making context is *process due care only*. . . . Thus, directors’ decisions will be respected by courts unless the directors are interested or lack independence relative to the decision, do not act in good faith, act in a manner that cannot be attributed to a rational business purpose or reach their decision by a grossly negligent process that includes the failure to consider all material facts reasonably available (emphasis added).¹⁶⁴

Needless to say, the line between the exercise of gross negligence in rendering a decision and the absence of a conscious decision (indecision/inattentiveness) and failure to act is a fine one. This is especially true, where reasonable persons could disagree about the relevance, veracity and usefulness of available information, particularly, whether it should serve as the basis for corporate action or inaction. Indeed, from a business perspective, sometimes it is more prudent to wait and do nothing at all when faced with conflicting or unclear information. There are often instances where the law is unclear on its face, where there is doubt about how it will be implemented, or where uncertainty exists as to whether a legislative proposal will ultimately be adopted.

However, judging from the evolving BJR case law, while courts may not, except under extraordinary circumstances, review board of directors’ *substantive* business decisions, they have become more proactive in reviewing the information gathering and review processes, (i.e. the internal governance mechanisms), upon which those decisions may ultimately be based. For example, in *Smith v. Van Gorkom*,¹⁶⁵ a shareholder derivative action was filed alleging that the *act* of approving a merger constituted a breach of the duty of care. Based on the facts presented, the

Delaware Supreme Court denied the directors protection under the BJR. It premised its decision on an evaluation of “the board’s many procedural errors and irregularities.”¹⁶⁶ After focusing on *the process by which the board made its decision*, the court “established a requirement [of] procedural or process due care as a prerequisite for invoking the [BJR. Consequently,] directors who fail ‘to act in an informed and deliberate manner’ may not assert the business judgment as a defense to care claims.”¹⁶⁷ This determination was consistent with the Delaware Supreme Court’s prior ruling in the *Aronson v. Lewis*¹⁶⁸ case, which held that the business judgment rule was inapplicable “where directors have either abdicated their functions, or absent a conscious decision, failed to act.”¹⁶⁹ “[T]he directors of a corporation [must] act [] on an informed basis, in good faith, and in the honest belief that the action taken was in the best interests of the company.”¹⁷⁰

The *Gorkom* court’s ruling had been extended by the Delaware Chancery Court in *In re Caremark Int’l Inc. Derivative Litigation*.¹⁷¹ In the *Caremark* case, the court recognized the duty of the board to remain adequately informed before rendering decisions, and the important role that monitoring systems can play in assisting the board to fulfill that duty:

*[I]n order for the corporate Board to live up to its duty of care, appropriate information is necessary [and that] [m]onitoring systems, presumably, would assist the Board in gathering this information. Thus, in order to satisfy their obligation to be reasonably informed about the activities of the corporation, Boards should have monitoring systems in place in order ‘to provide senior management and ...the board itself timely, accurate information sufficient to allow management and the board...to reach informed judgments concerning...the corporation’s compliance with law.’ Once such a system is implemented, the details of the system are matters of business judgment protected by the BJR (emphasis added).*¹⁷²

The court strongly suggested, therefore, that “the failure to have such a system in place could lead to director liability for losses caused by the [ignorant] violation of applicable legal standards.”¹⁷³

In the more recent case of *In Re Abbot Laboratories Derivative Litigation*¹⁷⁴, the U.S. Court of Appeals for the Seventh Circuit allowed a claim to go forward which “alleg[ed] that directors of Abbott Laboratories *knew of* significant problems [repeated FDA notices of safety violations at a major division] *and [yet] decided* that no action was required.”¹⁷⁵ According to the court,

The allegations if proved showed a ‘systematic failure of the board to exercise oversight’. The court found that six years of noncompliance resulting in the largest civil fine ever imposed by the FDA ‘indicate that the directors’ decision to not act was not made in good faith...’¹⁷⁶

In effect, the court ruled that if directors neglect to look at an issue important to the corporation, they would be found to have breached their fiduciary duty of good faith, thereby rendering the BJR unavailable as a defense.

Most recently, In *In re the Walt Disney Co. Derivative Litigation*¹⁷⁷, the Delaware Chancery Court accepted “an amended complaint against Disney directors arising out of the same severance payments [made] to [Michael] Ovitz that underlay the Delaware Supreme Court’s broad reading of the [BJR] in *Brehm*.”¹⁷⁸ As noted in the *Brehm* case, “the Walt Disney Company [had] approved the outgoing CEO’s termination contract without investigating the cost of termination or even reading the contract.”¹⁷⁹ “According to the Chancellor, the allegations in the amended complaint were not that the directors were negligent or even grossly negligent, but rather that they had not” ‘exercised any business judgment or made any good faith attempt to fulfill the fiduciary duties they owed to Disney and its shareholders.’¹⁸⁰

These facts, if true, do more than portray directors who, in a negligent or grossly negligent manner, merely failed to inform themselves or to deliberate adequately about an issue of material importance to their corporation. Instead, the facts alleged in the new complaint suggest that the defendant directors *consciously and intentionally disregarded their responsibilities* adopting a ‘we don’t care about the risks’ attitude concerning a material corporate decision. Knowing or deliberate indifference by a director to his or her duty to act faithfully and with appropriate care is conduct, in my opinion, that may not have been taken honestly and in good faith to advance the best interests of the company. Put differently, all of the alleged facts, if true, imply that the defendant directors *knew* that they were making material decisions without adequate information and without adequate deliberation, and that they simply did not care if the decisions caused the corporation and its stockholders to suffer injury or loss. Viewed in this light, plaintiff’s new complaint sufficiently alleges a breach of the directors’ obligation to act honestly, and in good faith in the corporation’s best interests for a Court to conclude, if the facts are true, that the defendant directors’ conduct fell outside the protection of the business judgement rule (emphasis in original).¹⁸¹

Therefore, in the Court’s view, “Where a director consciously ignores his or her duties to the corporation, thereby causing economic injury to its stockholders, the director’s actions are either ‘not in good faith’ or involve ‘intentional misconduct’”, and thus should be subject to liability.¹⁸²

Some legal experts have advised that the *Disney* case “has the potential to raise the [substantive common law] legal standard to which directors must adhere...[i.e., the fiduciary duty owed to the corporation]...to avoid personal liability.”¹⁸³ Other legal experts have focused on the jurisdictional issues.¹⁸⁴ They believe that the Delaware court has acted because it is concerned about the federal incursion of the Sarbanes-Oxley Act of 2002 on state corporate law. However, Delaware Supreme Court Chief Justice Veasey has denied that the *Disney* case involves anything more than “a simple application of existing case law” or that it has set any new precedents. According to Chief Justice Veasey,

[The business judgment rule is alive and well...What is evolving is...*the attention paid to the process used by directors, and the issue of good faith*...Boards need to know they’re not living in 1963 anymore...[That process should be judged]...against a backdrop of relevant Sarbanes-Oxley [statutes], SEC rules, and SRO [self-regulatory organization] requirements, *even though there may be no express right of private action in the federal legislation* (emphasis added).¹⁸⁵

While the Delaware Chancery Court, in a subsequent decision, declined to spell out the minimum level of deliberation a board would need to undertake to demonstrate fiduciary ‘good faith’, it did state the following:

As long as the Board engaged in action that can lead the Court to conclude it did not act in *knowing and deliberate indifference* to its fiduciary duties, the inquiry of this nature ends. The Court does not look at the reasonableness of a Board’s actions in this context, as long as the Board exercised *some* business judgment (emphasis added).¹⁸⁶

This ruling is likely to disappoint social and environmental activists and investors who seek not only to require that appropriate corporate governance mechanisms ensure that directors consider the issue of climate change, but also to require the method those directors use to assess and address that risk.¹⁸⁷ However, it will not likely stop them from trying to influence corporate

decisions. In fact, one group has gone so far as to allege that a board's failure to agree with and act upon the IPPC's 'objective' assessment of the science on climate change amounts to a failure in corporate governance.¹⁸⁸ Another group has argued that a board's failure to view climate change risk through the prism of a fiduciary investor, i.e., with environmental performance in mind, impairs shareholder value, and thereby violates directors' fiduciary duty of care to shareholders.¹⁸⁹

According to a recent Boston Globe article,

'Green' mutual funds, pension-fund managers, and religious investors are successfully pressuring energy companies to disclose emissions of greenhouse gas, set reduction targets, and predict how tighter regulations could affect the bottom line...In the latest development, Ford Motor Co. is expected to disclose...that it will be issuing a comprehensive report this year examining the business implications of reducing greenhouse gas emissions in exchange for withdrawal of a shareholder resolution...Meanwhile, activists have obtained agreements from ChevronTexaco Corp. and American Electric Power Co. to name some of the largest, and they have set their sights on the upcoming annual meetings of ExxonMobil Corp. and General Motors Corp.... 'This is not about progressive politics or conservative politics. It's not an activist campaign as much as it's a fiduciary duty to assess financial risk,' said Mindy Lubber, executive director of CERES... These tactics lie at the opposite end of the environmental protest spectrum from strategies like camping atop giant redwoods and unfurling Greenpeace banners on skyscrapers. Investor activists use shareholder resolutions at the annual meetings of big corporations in a bid to leverage change... The resolutions on global warming are part of a significant increase overall in shareholder actions aimed at pressuring big corporations, a trend fueled in large part by post-Enron demands for greater boardroom accountability.¹⁹⁰

What is not spoken of is that investors are free to invest in any company whose financial and operating performance will yield them superior financial or non-financial returns. If investors don't like a company's environmental, health and safety performance or management style they can refuse to invest in it and choose another company. But, to say, as Ms. Lubber and the other investor-activists do, that this is not about environmental activism but rather fiduciary responsibility, is at most an appeal for continued economic extortion of brand/reputation. Fortunately, with a little investigation, it is not hard to see through the disguised social and environmental agendas of these global governance-minded groups. Simply stated, they are not merely interested in investing in specific companies. Rather, much like the EU regulators they wish to impose their cultural preferences on *all* U.S. public companies, shareholders, customers and suppliers throughout the global supply chains.

G. The Encroaching Sarbanes-Oxley and SEC Disclosure Rules

As previously discussed, the business judgment rule focuses mostly on ensuring that the necessary information gathering processes and internal governance systems upon which boards may rely to make informed business decisions in the best interest of corporations and their shareholders are put into place. It does not address the kinds of information that the board should deem relevant for consideration or the substance of board decisions based on that information. It also does not address whether the board need disclose such information to shareholders.

The Sarbanes-Oxley Act, a federal statute, instead looks to the kinds of information that boards must consider (e.g., corporate 'risks'), and requires companies, as a matter of corporate governance, to publicly disclose the impact of such risk information in their periodic company

financial statements. As two legal experts have noted, it requires the board, as part of its internal governance function, to:

[F]orm a risk management committee of independent directors to supervise *disclosure of risks* in all SEC-filed documents. *These risks should include any identified or unidentified environmental liabilities that the company's business entails...* [And, it] requires the CEO and CFO to certify every periodic report that includes financial statements... impos[ing] criminal fines...and prison sentences...for knowing violations ...In response companies have set up internal controls to guarantee that CEOs and CFOs will learn of all environmental matters that require disclosure.¹⁹¹

This is precisely how reinsurers like Swiss Re perceive climate change, namely, as a risk management (and a business reputation) issue that boards must address as a matter of corporate governance.¹⁹² This view is not too dissimilar from the view taken by corporate social responsibility and environmental advocacy groups such as the Rose Foundation.

According to the NGO Corporate Sunshine Working Group, “While the Sarbanes-Oxley Act did not create any specific new environmental or social disclosure obligations, the increased care and attention now given to SEC reporting may increase the quality of reporting generally, and thus indirectly promote better environmental and social disclosure.”¹⁹³ However, social and environmental groups that support the precautionary principle are not yet satisfied that Sarbanes-Oxley and current SEC disclosure rules go far enough to ensure a ‘true and accurate’ financial accounting and disclosure of existing *and potential* corporate environmental liabilities. And, they and their congressional and UN allies have already endeavored to persuade SEC Chairman William Donaldson to change those rules so that they do:

William Donaldson was sworn in as new SEC chair on February 18, 2003. Senator Corzine submitted questions during Donald’s confirmation process about the systemic problem of underreporting of environmental issues. The Senator also referenced investor calls for improved rules on environmental and social disclosure and asked Donaldson what steps he would take as SEC Chairman to measure and improve compliance in the area of environmental disclosure requirements. Donaldson replied simply by stating that existing SEC rules provide for disclosure of material environmental matters, and that he would ‘work with the SEC’s Division of Corporation Finance to consider the full range of views on such matters.’¹⁹⁴ Donaldson [however,] is not seen as a disclosure champion.¹⁹⁵

On 26 February 2003, the *United Nations Environment Program – Financial Initiative (UNEP FI)* and the NAFTA-created Council for Economic Cooperation of North America hosted a day-long symposium on ‘Environmental Disclosures in Financial Statements’. The packed meeting covered *existing environmental disclosure rules in the U.S., the potential for increased disclosure under Sarbanes-Oxley*, and a discussion of financially material environmental disclosures in the oil & gas, utilities and mining sectors” (emphasis added).¹⁹⁶

In fact, these groups are largely behind the corporate accountability movement, which seeks to make SEC financial disclosure rules more stringent and transparent. Their goal is to discern out which companies and supply chains are not taking appropriate measures to address climate change risk for purposes of targeting future disparagement campaigns and shareholder resolutions against them.¹⁹⁷

VI. EUROPEAN INDUSTRY'S EXPERIENCE WITH HIGH COST PRECAUTIONARY PRINCIPLE-BASED REGULATIONS

A. Overall

One need only consider European industries' experience with the broad legal obligation 'to do no harm' in order to better understand what is really at stake for American companies should the precautionary principle become an international legal standard and even U.S. law. As previously discussed, European companies had been able, for a long while, to persuade regulators in many Community Member States to allow a "strategy of 'best available techniques not entailing excessive costs' (BATNEEC)... [However, over time, this] cost justification element [was] steadily restricted. [Currently,] if the technology is available, or can be developed in a reasonable time, [the currently prevailing view is that] it should be deployed" *whatever the cost*.

The administrative, financial and legal burdens imposed by EU precaution-based environmental regulations is equivalent to a hidden business tax that, as of 1999, constituted as much as 15% of the new capital invested by certain European industry sectors. These costs are likely to comprise a much higher percentage of such funds in 2005. Unfortunately, as European businesses eventually discovered, they could not assume that the increased costs of design, retooling, production and waste disposal they incurred as the result of precaution-based regulations could be passed along the supply chain unnoticed to their business customers and to their ultimate consumers. In other words, they found that they had to be internalized (i.e., self-absorbed), especially during lean economic times. Consequently, the profitability, competitiveness and viability of European small and medium-sized enterprises ('SMEs') have been severely threatened.

The Financial Times recently described the negative impact that generally higher European labor and precaution-based environmental regulatory costs have had upon German corporate research and development investment:

About half of all German companies which invest in research and development abroad [e.g., central and eastern Europe, Asia and North America] have been reducing their research capacities at home... The shift of highly qualified R&D jobs is strongest among companies that have moved production capacities to low-cost labor markets and leads to an 'off-shoring' spiral... Nearly one in five German companies said they would move R&D jobs abroad during the next three years... 66 percent of companies with more than 1,000 employees said the investments were intended to support their production capacities abroad... While the increased availability of cheap qualified labor was clearly a factor in off-shoring... *industry-averse legislation, both at the EU and the national level, continued to drive entire value chains away from Germany. Business leaders have been particularly critical of a German bill that sets some of the strictest limitations in Europe on the growing of genetically-modified crops, and of plans by the European Commission to raise safety standards for the chemicals industry* (emphasis added).¹⁹⁸

B. Forest-Based Industries

Indeed, the EU Commission has determined, for example, that, far from enhancing the competitiveness of Europe's forest-based industries, the relatively higher cost of precautionary regulation, when coupled with higher related energy and labor¹⁹⁹ costs, actually made these companies *less* competitive globally. This was revealed in a report issued by the Commission

during 1999:

...Environmental, fiscal, energy, or labour related measures, both at EU and national levels, affect the actual cost level of the input factors as well as the technology based investments...legal measures, in particular, in the environmental field, often form a major challenge for the sector. *Environmental obligations are still seen more as a cost increasing factor than as a factor to enhance competitiveness...It should be noted that today as much as 15% of the new investment in the FB-IND [forest-based industries] is directed to meet environmental targets. The corresponding figure in competing regions is lower*" (emphasis added).²⁰⁰

...The effects of globalization have been seen in the increased worldwide procurement of raw materials such as wood and pulp and in the intensification of world-wide trade in forest-based products...[I]t increases pressure within the EU through low cost imports, which affect, in particular, the products with a low value-added, e.g., sawn wood, certain wood-based panels and pulp industries...[T]he EU FB-IND faces competition from countries where social and environmental standards, concern for sustainable forest management, health and consumer protection...and hence production costs are at a lower and, in some cases, far lower level. The Community industry is increasingly challenged by the new low cost competitors from Asia...[and]...Latin America...This has caused the EU FB-IND to lose market shares, both within and outside the EU...²⁰¹

Consequently, many European businesses have chosen to relocate their operations abroad to less costly and burdensome jurisdictions, especially developing countries.

C. Pharmaceuticals and Life Sciences

Similarly, in the case of the high-tech European life sciences sector, greater EU research and development, clinical testing and regulatory authorization costs have primarily contributed to higher pharmaceutical production costs and lower pharmaceutical industry profitability. And, when combined with European national laws constraining pharmaceutical prices and profit margins,²⁰² these costs have posed a serious obstacle to maintaining the competitiveness of European pharmaceutical and biotech products.

All new medicines introduced on the market are the result of lengthy, costly and risky research and development (R&D) conducted by pharmaceutical companies. The rate at which R&D costs have risen over the last decade is illustrated in several recent studies. The latest study released in November 2001 estimated the average cost of researching and developing a new chemical or biological entity at 870 million [Euro]. Meeting these cost demands ever-increasing investment efforts, which in the pharmaceutical industry's case, are almost entirely financed from its own resources.

High failure rates, the significant cost of clinical trials *and the amount of resources needed to get approval by regulatory authorities are the primary reasons for this exponential increase of R&D costs.* Promising new substances frequently reach an advanced stage of clinical research before results demonstrate that they must be abandoned...The financing of such R&D costs requires a sustained and substantial cash flow that the company is only able to generate if it launches new medicines on the various national markets as quickly as possible (emphasis added).²⁰³

As a direct result of these higher costs and profitability constraints, European pharmaceutical companies have found it increasingly difficult to attract the investment capital necessary to fund their research and development activities, and consequently, have had to curtail such spending. As a result, this sector has been placed at a further competitive disadvantage vis-à-vis US companies.

The European *pharmaceutical industry* has for many years been the world's leading inventor of new medicines. However, it now seems to be marking time as the ability of European companies to fund R&D declines under economic and regulatory pressure. In addition, Europe is under-represented in some crucial R&D fields, *particularly biotechnology*.

In 1960-65, European companies invented 65% of new chemical entities (NCEs) placed on the world market, but by the end of the 90's, this share had fallen to about 35%. *The latest data available (period 1999-2003) show the predominance of the United States which has now become the leading inventor of new molecules in the world* (emphasis added).²⁰⁴

In the absence of public (fiscal or tax) incentives to support pharmaceutical R&D²⁰⁵ and strong intellectual property right protections, European companies, during the past decade, began shifting their intellectual property-based research and development departments/ operations to more business-friendly and relatively lower cost jurisdictions, particularly the U.S.

Compared to the US, Europe is seen as a less attractive R&D investment location in terms of market size and incentives for the creation of new innovative biotech companies. Over the past ten years, Europe's research and development basis has gradually eroded, with new leading-edge technology research units being transferred out of Europe, mainly to the United States. Whereas R&D investments in Europe grew by 2.6 times between 1990 and 2003, the corresponding increase in the U.S. is more than four fold (emphasis added).²⁰⁶

This, in turn, has had a dangerous 'chilling effect' on European industrial and technological innovation and it has cost European pharmaceutical companies their competitive position.

[T]he *sales* of major innovative products by the US multinationals have increased more significantly than those of the European multinationals in the 1990s. Moreover, big European corporations seem to *lag* somewhat behind in their ability to produce and above all sell, new, innovative, best selling drugs... The US advantage and the emergence of a process of deteriorating competitiveness in Europe have been emphasised and deepened by the advent of the molecular biology revolution. The competitiveness of the US system seems to be largely related to the extensive exploration of new technological opportunities... Particularly, Europe has not really given rise to a full fledged industry of innovation specialist companies and technology suppliers like in the US. (emphasis added).²⁰⁷

D. Chemicals and Downstream Industries

The European chemicals sector, appears to be at a comparative disadvantage relative to the U.S. chemicals industry, due to both higher regional energy costs (triggered, in part, to the anticipation surrounding Kyoto Protocol emissions caps) and the likely adoption of costly European precaution-based chemical regulations (REACH).

*Regulation, energy and transport have a strong impact on the industry's competitiveness. On all three counts, the picture in Europe compares unfavourably to that in other parts of the world. On the regulatory front, the EU is continuing to tighten its health, safety and environmental laws, more than in most other parts of the world. Introducing a new chemical substance in the EU takes three times longer and costs 10 times more than in the U.S. – and regulation presently in the EU pipeline is unlikely to make things easier or less costly in the future. The chemical industry is energy-intensive. The liberalisation of EU gas and electricity markets, however, is still far from completed, resulting in higher energy costs than in North America and Asia. European producers, meanwhile, are making successful efforts to meet the EU's greenhouse-gas commitments under the Kyoto Protocol (emphasis added).*²⁰⁸

Indeed, in December 2002, the Federation of German Industries (Bundesverband der Deutschen Industrie e.V. (BDI)), representing all manufacturing industries in Germany, published an economic impact study analyzing how the proposed REACH regulation would affect the German economy. Its assessment concluded that considerable production and job losses in all of German industry — not just in the chemicals sectors — would result.²⁰⁹ The original study forecasted a worst case scenario — production losses of 20.2% and job losses of 2.3 million. This estimate was accompanied by an economic impact assessment performed by the French chemicals industry. It reflected that the cost of compliance would be between 29 and 54 billion euros over a ten-year period. The estimate, furthermore, projected a 1.7-3.6% decrease in French GDP over such period, along with a 2% rise in unemployment.²¹⁰

These studies were subsequently revised (slightly downward) as the REACH provisions were reworked following receipt of industry comments. BDI, for example, released its first supplemental report during September 2003. By any reasonable measure, the economic impact of the REACH regulation on German industry, even in its reworked form, remained significant. The revised study reflected the following:

[T]he EU Chemicals policy would cost the German economy 4.7% gross value added, if the text presented by [former] Enterprise Commissioner Erkki Liikanen and [former] Environment Commissioner Margot Wallstrom in May [2003] would become law. This effect would translate into a loss of 1,735,000 jobs. *The main reasons for this effect are the costs imposed on industry by bureaucratic procedures, loss of innovation and competitiveness* (emphasis added).²¹¹

A second supplemental report was released during April 2004.²¹² It analyzed the impact of REACH on several EU member state (French, Italian and German) economies as well as on the EU regional economy. It cited an April 2004 French study, which concluded:

[T]he industry in France will potentially experience a decrease of 1.6% of Gross Domestic Product...after a time period of 10 years. This decrease correlates with the loss of 360,000 working places (1.5%) in France over the same time period...The study forecasts a decrease of value-added over the next ten years [of] 6.8% for the chemical industry and 8.3% for [the] plastics and rubber industr[ies] – both values refer to France...[T]hose segments serving the end consumer) formulators as well as producers of cosmetics, soaps and detergents) will suffer most...The high risks for production losses are based in significant losses in competitiveness mainly driven by loss in innovative power. *Both sub-segments of formulators and producers of cosmetics, soaps and detergents are significantly dominated by SMEs* (emphasis added).²¹³

It also cited a February 2004 Italian study:

The Italian study estimates the influence of the new legislation on the different Italian industry sectors by defining the vulnerability index. This index is developed on the basis of three issues: pressure on EBITDA, competitiveness vs. extra EU 15 countries and the elasticity factor cost/price. [The] higher the index, [the] more the industry sector considered will suffer: Leather and leather products - 100%; rubber and plastic products - 78.8%; textile and textile products - 69.8%; paper, publishing and printing - 60.9%; transport equipment - 47.9%; wood and furnishing - 45.1%; basic metals and fabricated metal products - 36.3%... The study concludes four sectors being very vulnerable: leather and leather products, rubber and plastic products, textile and textile products and paper, publishing and printing... [As concerns the impact on the Italian chemical industry sectors,] [t]he analysis indicates as high risk segments those areas being in the fine and specialty segment or nearby the end consumer: organic fine chemicals, dyes and pigments, other fine chemicals, paints and varnishes.²¹⁴

With respect to the German economy, the report predicted an overall gross added-value loss of between 2.7% and 3.3%, which translates into projected job losses of between 1 million and 1.23 million.²¹⁵

The loss is mainly driven by [value-added] losses in the industry sectors 'paper, publishing and printing industry' (1.6%), 'chemical industry' (2.4%) and 'production of rubber and plastic goods' (2.1%). But these sectors are not the only ones of potential high burden by the new legislation... [All] manufacturing industry in Germany [will suffer a loss] in gross value added [of] 10.6%... In addition to the three sectors mentioned above, the sectors of textile and leather industry as well as coking and oil refining will suffer significantly as indicated by production losses of over 30% up to 50%.²¹⁶

And, concerning the overall impact of REACH on the regional EU-15 economy, it found the following:

[T]he potential decrease of gross added value of the [downstream] manufacturing industr[ies] is 12.6%. This decrease is higher than that estimated for Germany with 10.6% [because]... in comparison to Germany, the industry sectors of chemical industry, paper, publishing and printing as well as the textiles and leather sector have a significantly higher contribution to the overall gross value added... [As] regards the Chemical industry... the potential production losses for [the] base and fine & specialty chemicals... segment [is] 25%[;] end consumer chemicals industry, excl. pharmaceuticals [is] 50.7%[;] [and] rubber industry 44.6%. All three sectors are heavily burdened by the new legislation by high production volume in Europe being at risk.²¹⁷

As a result, the EU chemicals sector is unable to maintain sufficient research and development spending within the European region and has increasingly relocated plant, equipment and R&D to less costly developing countries such as China.²¹⁸

The decreasing expenditure for research and development in the chemicals sector... is a direct consequence of the lower profitability in Europe than in other parts of the world and of the eroding skills bas[e]. Together with production units R&D centres are now also being delocalised to... emerging markets. *The fact that the financial and regulatory climate is less attractive in Europe as well further promotes this trend* (emphasis added).

Arguably, all of this has likely contributed to what U.S. government experts now refer to as an ‘innovation paradox’ and a ‘brain drain’ within Europe²¹⁹ that has likely exposed European society to potentially greater public risks and economic hardships than those originally perceived.²²⁰

Lastly, European industry is currently suffering the costs of meeting stringent EU greenhouse gas (GHG) emissions trading regulations that will increase their already exorbitant regional energy costs. These regulations recently went into effect to implement EU regional and member state Kyoto Protocol obligations. Experts have calculated that “the EU’s emissions trading plans *will increase electricity costs by up to 40%*, hurting businesses and consumers alike” (emphasis added).²²¹

VII. PRECAUTIONARY PRINCIPLE-BASED REGULATIONS EXPORTED TO CHINA

China has within the last ten years become the factory of the world and is now widely recognized as the base of the global supply chain for many types of manufactured products and processes. It is for this reason that the pace of joint EU-China regulatory and standards initiatives has increased in recent years. Unfortunately, those activities may also have a significant adverse impact on the China-based imports *and* exports of U.S. companies.

According to one U.S. industry trade association,

The Chinese Government is looking to the European Union for inspiration on environmental policy. In 2003, the Chinese Government initiated four major environmental policy initiatives that affect energy efficiency, hazardous material content, and end-of-life disposition of high-tech products, as well as the collection and recycling of spent batteries. The broad scope and strict nature of these environmental policies will impact product innovation, cost, functionality, and liability. Multinational companies or companies that export from the U.S. will find they are spending more time researching and complying with environmental product requirements in numerous countries around the world. Administrative and reporting burdens that will result from the policies will also add significant cost. . . . *The bottom line is that the EU-driven environmental regulations are and will impact the design, production and sale of electrical and Electronics equipment around the world, regardless of where the product is design and produced.* (emphasis in original).²²²

In the opinion of two Chinese standardization experts, China’s interest in the European regulatory and standards model, especially as concerns environmental policy, has likely arisen for two reasons. First, it is most likely due to China’s post-WTO accession need to develop science-based and market responsive national standards to facilitate its continuing technological and economic development. Second, China apparently has a systemic bias that it shares with Europe (and even Japan) towards top-down, state-directed economic activity and formal international institutions.

With the initiation of the reform and open-door policies after 1978, the Chinese standardization system faced new challenges to become more science based, market responsive, and international. China’s participation in the ISO, the IEC, and the ITU has moved it in these directions but also reinforces its strong tradition of state-directed economic activity, and biases its approach to standards in a direction that favors mandatory standards and the employment of formal international organizations for the establishment of international standards. *In this*

sense, the Chinese approach shows a greater similarity with European and Japanese traditions than with the U.S. system with its preference for voluntary standards generated through market processes and industry cooperation. (emphasis added).²²³

Not surprisingly, therefore, Europe has been eager to oblige them, especially if it disadvantages American industry and keeps American economic and political power in check.²²⁴ Indeed, since 2000, the EU has maintained a science and technology exchange program (the ‘INCO Programme’) based in China to promote EU health, environment and food security and safety research. Its goal has been to move China towards European precaution-based regulatory rules in order to impose them throughout the global product supply chains. In many ways, the EU has already achieved considerable progress:

...Our S&T [science and technology] relations clearly contribute to the overall positive political relations between the EU and China...The INCO programme has successfully supported selected policies like health, environment, food security and safety, sustainable agriculture, and overall policy development research. *It has contributed to move China towards European models: China has a de facto moratorium on GMO food, uses European car emission standards, supports bio-energy and sustainable agriculture, and even China tries to copy elements of our way to manage the Framework Programme...Our projects already show an impact on regulatory activity in China...* [concerning]... radiation emissions of mobile phones, certified BSE-free cosmetics, or hormones in chicken meat...European companies are rapidly building up research facilities in China. Sectors especially interested to extend the Framework Programme into China are: IT, aeronautics, automotive, pharmaceutical, and biotechnology... (emphasis added).²²⁵

During 2001, for example, “China introduced a product quality law that contain[ed] a number of different provisions, including a *specific provision on liability compensation for damage, [that was] identical to the European Directive [on Products Liability]*. It even include[d] a development risk defence, since China wished to protect their nationalized business entities through this means...The European Directive...ha[d] [also] been adopted in many other countries, notably Australia’s Part 5A of the Trade Practices Act in the early nineties, and Japan in its law of 1995” (emphasis added).²²⁶

During 2002-2003, the Chinese government enacted strict rules implementing EU-like regulations on agricultural biotechnology safety, testing and labeling. In addition, at approximately the same time, China issued proposed regulations to eliminate the use of lead in electronics products that were based on the EU’s RoHS and WEEE regulations noted above.²²⁷ They require U.S. high-tech companies and their suppliers to eliminate the use of certain hazardous substances in their products (including lead) and to take-back and recycle waste electronics.²²⁸ This take-back mandate likely applies “to most electronic items – from TVs and cell phones to lights, toys, medical equipment, fire alarms, sewing machines and even ATM machines.”²²⁹ In addition, Chinese government agencies have since been focusing more on chemicals management issues, and are now believed to be considering the adoption of an EU REACH-type regulation for chemicals management²³⁰, despite their previous public criticisms of the EU REACH proposal.²³¹

These activities are consistent with European global sustainable development strategy, pursuant to which the EU Commission has continued to offer to China “its environmental energy know-how to help it develop efficient and clean industrial processes and energy production...to prevent climate change”. Such strategy has specifically sought deep and extensive cooperation on legislative policy, regulatory and standards matters.^{232 233 234}

And these official ‘capacity building’ efforts²³⁵ have been complimented by those of the NGO community, which is involved in developing China’s environmental regulatory framework so that it incorporates the precautionary principle and impacts global supply chains. The U.S.-based Natural Resource Defense Council (NRDC), for example, is helping China draft and enforce air pollution laws and reshape its energy infrastructure by, among other things, promoting western (presumably, European) industry’s transfer of greenhouse gas emissions mitigation technology to China. According to the NRDC, since China is the second largest consumer of energy in the world, the leading producer of coal in the world and the second greatest emitter of (coal-based) greenhouse gases in the world, once the Kyoto Protocol goes into force China’s ratification of it will “ensur[e] [that] official CDM [clean development mechanism²³⁶] projects [encouraged by the treaty] will soon be launched on its soil.”²³⁷

What has concerned American companies even more regarding China’s growing cooperation with Europe on legislative, regulatory and standards issues, however, is its willingness to emulate Europe’s use of strict top-down (precautionary principle-based) environmental regulations as disguised trade barriers in order to protect its nascent commercial and technology-based industries.

Cooperation on standards between Europe and China, aided by these similarities in institutional assumptions, has become a matter of concern to some U.S. firms which see it as bestowing advantage to European competitors in the Chinese market” (emphasis added).²³⁸ “China has become intensely aware of the increasing importance of technical standards in corporate strategy and national industrial well-being. Its entry into the WTO is a third influence which, by facilitating the business operations in China of multinational corporations who often control standards and international standard setting, has reinforced the lesson that standards matter a great deal. In addition, though, China’s obligations under WTO include the modernization of its own domestic standards regime to bring it into conformity with international norms, a process still in progress. Thus, the deeper integration with the international economy resulting from WTO accession has both obligated China to redesign its own domestic standards regime, but has also provided incentives to pursue distinctive Chinese technical standards in its technology policy as a way of managing the increasing competition from foreign firms (emphasis added).²³⁹

Also unsettling, is the question surrounding how U.S. international business activities, technologies and products may be affected in the longer term by the common view shared by Europe and China that, “global institutions, particularly the United Nations, need to be strengthened...as a further check against a unipolar hegemon [the United States]”, and for the purpose of addressing the “various challenges of global governance” – namely, sustainable development.²⁴⁰ According to a recent report, the different ways in which Europe and the U.S. perceive an evolving China can be summarized as follows:

“Although European and U.S. companies are locked in intense competition for market share in China, at the governmental level the difference in investment of resources is indicative of the divergent approaches to managing a rising China. The United States invests its resources primarily to monitor the growth of China’s hard power and to deter potentially aggressive Chinese behavior beyond its borders, whereas the EU is investing in initiatives inside of China to increase the country’s soft power and facilitate its sustainable development” (emphasis added).²⁴¹

VIII. PRECAUTIONARY PRINCIPLE-BASED REGULATIONS PROPOSED AND ADOPTED IN THE U.S.

A. General

During July 2004, *The New York Times* reported about the growing collaborations taking place between the American and European environmental and social responsibility movements. It noted how American groups are devoting substantial financial and human resources to European-based fear campaigns that intimidate Brussels Commissioners and Parliamentarians, sway European public opinion, threaten the reputations of non-environmentally or socially conscious businesses and ensure the enactment of legislation based on the precautionary principle. Ironically, European governments and the EU Commission have funded many of the campaigns that have challenged their credibility.²⁴² According to the Times article, these non-governmental organizations (NGOs) are now using the stricter precaution-based European regulations as a lever/ platform to promote similar regulatory change in the U.S.²⁴³

The existence of such a movement was further described within a September 2004 editorial appearing in the activist periodical, *The Multinational Monitor*. In fact, it effectively called upon environmental and consumer advocates to counter American business' resistance to these overtures and to take direct action in order to enshrine the precautionary principle within U.S. and international law.

“The industrial age's experience with leaded gas, ozone destruction, involuntary chemical poisoning of virtually every person on earth, and global warming -- among many other phenomena -- highlight the importance of acting to prevent public health and environmental harms before they occur, and acting even when there is less than complete certainty about the risks of such harms occurring. With application of many novel technologies, such as *genetic engineering and nanotechnology*, speeding to market, society faces a choice: Undertake an experiment on a planetary scale to determine if these technologies endanger human well-being and the ecology -- and try afterwards to fix whatever problems emerge -- or act in preventive fashion to assess what problems might occur, and take action to avoid them in advance of widespread diffusion of the technologies. *The Precautionary Principle says: Take the second course.....Not surprisingly, big business generally finds the Precautionary Principle threatening. That's because it imposes new duties and responsibilities on private corporations, even as it says that decision-making authority should be transferred from the private corporate realm to the public sphere...The European Union has been a global leader in beginning to incorporate the Precautionary Principle in its policymaking...Perhaps the most serious threat to implementation of the Precautionary Principle is the claim that it conflicts with governmental obligations under the World Trade Organization (WTO) Agreements and other trade deals.*

...The National Foreign Trade Council (NFTC), a U.S. business association working on trade issues, has issued a series of reports arguing that precautionary action conflicts with countries' WTO duties. The centerpiece of the council's elaborate argumentation is this: The WTO's Sanitary and Phytosanitary Standards Agreement (SPS Agreement, covering food safety and animal and plant health standards) and Technical Barriers to Trade Agreement (TBT Agreement, covering regulations, standards, testing and certification procedures) require countries not to use standards more stringent than those established by international agencies. Countries may exceed these standards only in

very rare circumstances, and based on risk assessments. Regulatory action in the face of uncertain evidence -- the core of the Precautionary Principle—conflicts with these WTO rules. As it happens, the NFTC's arguments are good ones, at least in WTO terms...

Thus although the Precautionary Principle may be an idea whose time has come, there is nothing inevitable about its adoption, implementation and diffusion. Powerful forces are arrayed against it... ***Unless people take and demand action-- including the roll back of WTO rules -- Precautionary Principle foes will manage to suppress this rising and vital public health and environmental doctrine***" (emphasis added).²⁴⁴

Apparently, this movement, assisted by liberal-minded American think-tanks and politicians, had been extremely active and influential in setting U.S. domestic and international policy during the Clinton Administration. Since that time, however, the movement has reorganized, attracted idealistic and opportunistic politicians from both parties, and has been operating largely underground.²⁴⁵ As the following discussion demonstrates, precautionary principle advocates are now aggressively taking direct action by introducing legislation and initiating legal challenges at the local, state and federal levels, "challenging the very way America does business".²⁴⁶ In the case of biotech, for example, one former Congressional staffer had previously expressed the federal government's longstanding fear that, if Europe's global precautionary principle movement were successful, it could eventually change U.S. domestic regulatory law.

One of the greatest U.S. fears is that a successful EU provision for labeling with its 1% [or less] threshold will become the de facto global standard, given the size of the European market and the influence of the EU nations in international forums. *And if the EC approach is successful, then the underlying philosophy of the U.S. regulatory system may be called into question and domestic forces may seek to reopen the regulatory system in the U.S.*, something that the biotechnology industry and the food and agriculture sectors would find extremely disruptive (emphasis added).²⁴⁷

B. Sector-Based State and Local Legislative Initiatives

1. Hazardous Substances and Waste Product Disposal

A number of state legislatures have enacted or otherwise reviewed precautionary principle-based proposals seeking to ban or severely restrict the use and disposal of hazardous waste substances consisting primarily of electronic waste ('e-waste' – scrap metal and plastics), batteries and brominated flame retardants used in fire extinguishers, and in the manufacture of clothing and furniture. However, in both cases, precautionary principle advocates have, like their European patrons, failed to provide specific scientific evidence of public risk exposure or to offer any viable commercial alternatives to replace such products.²⁴⁸

In the case of e-waste, for example, they have even failed to inform the American public how most such waste is not currently placed in American landfills, but instead, actually exported from the U.S. by waste disposal industry intermediaries to a number of eager Middle Eastern, Asian and Southeast Asian developing countries. Those countries view e-waste as financial currency, and they require high volumes of such waste in order to develop the economically and environmentally efficient technologies necessary to safely process it within their borders. They also depend upon such imports and the expansion of their waste disposal and related industries to build and sustain their national economies and societies – i.e., to enhance their citizens' quality of life and well-

being, and to gain for themselves a comparative advantage in international trade.²⁴⁹ This raises an important question: Are these advocates ultimately intending to follow the European path toward erecting new foreign trade barriers that seek to deny developing countries the ability to develop their own waste processing technologies by retaining the waste for safer processing within the U.S.?

2003 Legislative Proposals and Enactments: E-Waste

The State of California, for example, has adopted two precaution-based pieces of legislation that are modeled after similar EU regulations. During August 2003, California enacted AB 302, which banned two of the three poly-brominated diphenyl ether (PBDE) flame retardants that are used in plastics and foams.²⁵⁰ The European Union imposed a similar ban during 2003, to take effect during August 2004.²⁵¹ According to the National Electrical Manufacturers Association (NEMA), “[t]his is the first instance of a legislature in the US passing a provision from the European Union waste directives that were enacted last year.”²⁵² On September 21, 2004, the California legislature accelerated the phase-out date called for by this bill from January 1, 2008 to January 1, 2006.²⁵³

During September 2003, California also adopted the Electronic Waste Recycling Act of 2003 (‘SB 20’). Modeled after the EU RoHS and WEEE Directives, the California law aims to reduce the amount of hazardous substances used in certain electronic products sold in California and to impose and collect an electronic waste recycling fee at the point of sale of certain products. The law also establishes environmentally preferred purchasing criteria for state agency purchases of certain electronic equipment.²⁵⁴ The law expressly covers cathode ray tubes (CRTs) and flat panel displays (FPs) measuring greater than 4” diagonal. It perhaps also applies to CRTs and FPs contained in cars, medical devices, heavy industrial commercial equipment, PDAs, Gameboys, microwaves, after-market in-dash GPS monitors, and printers.²⁵⁵

This bill’s introduction was likely inspired by the prior success achieved by environmentalists within the State of Massachusetts. “On April 1, 2000, Massachusetts became the first state to ban the dumping of electronic equipment into landfills and incinerators.”²⁵⁶ Apparently, Massachusetts believed that many people were going to replace their old TVs and computer monitors (which featured lead containing cathode ray tubes (CRTs) used to reduce electromagnetic radiation) with the more popular flat paneled high-definition televisions (HDTV) and flat panel computers.²⁵⁷

During 2003-2004, more than half of the state legislatures within the U.S. considered Euro-style proposals to mandate some kind of ‘e-waste recycling’. Within at least ten states, legislative proposals sought to impose a state-wide ‘advance recovery fee’ on consumer purchases of cathode ray tubes (CRTs) to finance state collection and recycling of such items. Within a half dozen states, legislation was introduced requiring retailers and/or manufacturers to establish collection points for discarded electronics. And, within at least four states, legislative proposals sought to mandate ‘take-back’ and recycling of ‘e-waste’.²⁵⁸

Arguably, Maine’s 121st legislature (2003-2004) was the first in the nation to enact a law mandating e-waste ‘take-back’ and recycling for businesses modeled after European law.²⁵⁹ While this law provides that “municipalities, consolidation facilities, manufacturers and the State share responsibility for the disposal of covered electronic devices”, it nevertheless requires manufacturers to “develop a plan for the collection and recycling or reuse of computer monitors and televisions” and holds “manufacturer[s]... responsible for all costs associated with the development and implementation of the plan. If the costs are passed on to consumers, the costs

must be imposed at the time of purchase and not with a fee imposed at the end of life of the computer monitor or television. at manufacturer expense.”²⁶⁰

2003 Legislative Proposals and Enactments: PDBEs

During 2003, bills were proposed in the States of Maine²⁶¹ and Michigan²⁶² that sought to ban or phase-out the use of PBDEs in all products. And, within the States of Rhode Island, Texas and Vermont, e-waste bills modeled after the EU RoHS and WEEE Directives and current California legislation (Hazardous Electronic Waste Regulations) were introduced. Such proposed legislation sought to phase-out the use of numerous chemicals, including metals and plastics in product design and/or to ban the disposal of products containing them in landfills.²⁶³

2004 Enactments and Executive Orders: E- Waste

On September 29, 2004, California became the first state to enact a cell phone collection law. California State assembly member Fran Pavley (D), the bill’s author, previously drafted the 2002 California regulations requiring the development and adoption of the nation’s first greenhouse gas emission reduction standards for automobiles. The new law requires every cell phone retailer to have a system in place to collect used phones by July 1, 2006.²⁶⁴

2004 Enactments and Executive Orders: PDBEs

During April 2004, Maine adopted proposed bill LD1790. It “prohibits the sale and distribution of new products containing two [PDBEs] [(pentaBDE or octaBDE)] as of January 1, 2006.”²⁶⁵

During August 2004, New York State enacted AB 10050 and S.7621 (as new Article 37, Title I of the Environmental Conservation Law of New York State²⁶⁶), effective January 1, 2006. New Article 37 Title I “prohibits the manufacture, process, or distribution of brominated flame retardants, specifically penta- and octa-PBDE,”²⁶⁷ and authorizes “[t]he Commissioner of Environmental Conservation [to]...create regulations on the maintenance of records [e.g., lists of substances presently *or potentially hazardous to the environment*].”²⁶⁸ The new law also establishes “a Task Force on Flame Retardant Safety to study the risks associated with decabrominated diethyl ether and the availability, safety and effectiveness of alternatives to such flame retardant.”²⁶⁹

During June 2004, Hawaii enacted HB 2013. The new law, Chapter 332D of Hawaii Revised Statutes, “[p]rohibits the manufacturing, processing, or distribution of a product or flame-retarded part of a product containing more than 0.1% by mass of pentaBDE, octaBDE, or any other chemical formulation that is part of these classifications, on or after January 1, 2006.”²⁷⁰

Back during 1998, the State of Washington had adopted an administrative policy to phase-out ‘persistent, bioaccumulative and toxic (PBT) chemicals.’²⁷¹ * On January 28, 2004, Washington State Governor Gary Locke signed and “issued an executive order directing the Dep[artment] of Ecology to move forward on phasing out the use of PBDE’s [deemed to consist of PBTs].”²⁷² And, during March 2004, the legislature approved funding for the Dep[artment]. of Ecology to phase out all three types of PBDE’s (penta-, octa- and deca-).²⁷³

2005 Proposals & Enactments: E-Waste

During 2005, e-waste and cell phone recycling bills have been introduced within a number of state legislatures, including those of Illinois²⁷⁴, Mississippi, New Jersey²⁷⁵, New York, Vermont and Virginia. “Another New Jersey bill encourages cell phone retailers, distributors and manufacturers to establish voluntary recycling programs.”²⁷⁶

The details of the cell phone bill provisions vary, but the majority prohibit municipal solid waste disposal, require retailers to accept used cell phones from customers free of charge and obligate manufacturers, importers (into the state) and/or brand holders to develop waste management plans for cell phone reuse, recycling or proper disposal. Retailers must accept customers’ used cell phones regardless of brand or the initial place of purchase. Online businesses that deliver cell phones directly to customers are equally obligated to accept used cell phones. To educate consumers about cell phone recycling requirements and opportunities, product labeling, in-store signs and written materials are required. Toll-free phone numbers and web address information sometimes must be advertised. California’s statute, which includes most of these requirements, is clearly being duplicated in the proposals.²⁷⁷

2005 Proposals, Enactments & Resolution: PDBEs

On January 3, 2005, Michigan enacted HB 4406 (from the 2003 legislative session), which prohibits the “manufacture, process, or distribute a product or material that contains more than 1/10 of 1% of penta-BDE or octa-BDE...and SB 1458, [which authorizes] [t]he state [to] establish a PBDE advisory committee.”²⁷⁸

On February 8, 2005, California State Assemblyman Chan introduced AB 263,²⁷⁹ which would grant rulemaking authority to the California “Department of Toxic Substances Control to administer and enforce [the] ban on PBDE’s” imposed under AB302 discussed above.²⁸⁰ The new bill specifically authorizes that agency to assess civil penalties of up to \$5,000 against violators of the current California law pursuant to a notification and hearing process. “The bill provides “that each violation of those provisions chapter is a separate violation and each day of the violation is a separate violation.” This bill was referred to the Assembly Committee on Environment, Safety and Toxic Materials on February 15, 2005.²⁸¹

During January 24, 2005, two new bills addressing PDBEs were proposed in the Hawaii State Legislature (HB 234 and SB 471), which would amend the previously enacted HB 2013 (Chapter 332D of Hawaii Revised Statutes).²⁸² In particular, the new bills seek to “[g]rant[] rulemaking authority to the department of health for the regulation of polybrominated diphenyl ethers [PDBEs] for purposes of enforcing chapter 332D.”²⁸³

During January 2005, the Washington State Legislature followed up on Governor Locke’s 2004 executive order. It introduced companion bills H.B. 1488 and S.B. 5515, which would prohibit the sale of products that contain polybrominated diphenyl ethers (PDBEs).²⁸⁴ The bills also provide that “the department of general administration and the department of health shall conduct a stakeholder process to develop a *proposal for a ban* on the use of decabromodiphenylether *in transportation vehicles*, and a *proposal for the ban or management of used and recycled products containing polybrominated diphenyl ethers*” (emphasis added).²⁸⁵ And, they instruct these agencies to consider “a timeline for a *requirement to label brominated flame retardants sold in Washington...*[and]...[to] [g]ive priority and preference to the [State’s] purchase of equipment, supplies, and other products *that do not contain polybrominated diphenyl ethers...*” (emphasis added).²⁸⁶

During February 2005, a similar bill (S.B. 962)²⁸⁷ was introduced in the Oregon State Senate. It would define certain brominated flame retardants as 'hazardous substances', "prohibit introduction or delivery for introduction into commerce of products containing certain amount of brominated flame retardants, [and] [d]irect[] [the Oregon] Department of Human Services to issue biennial report[s] regarding brominated flame retardants." ²⁸⁸The bill was referred to the House Health Policy and Ways & Means Committees on February 25, 2005.²⁸⁹

During February 2005, two similar bills (S.B. 424 and H.B. 2572), entitled, 'The Brominated Flame Retardant Prevention Act', were introduced within the Illinois State Legislature.²⁹⁰ Each would ban the manufacture, processing and distribution in commerce of PDBEs in products or as components in brominated flame retardants, effective January 1, 2006.²⁹¹ However, the House bill goes further than the Senate bill which simply calls for the ban to be implemented effective January 1, 2008.²⁹² In particular, the House bill provides for specific transactional and use exemptions, and expressly states that it would *not* restrict "a manufacturer, importer, or distributor from transporting products containing PBDEs through th[e] State or [from] storing PBDEs in th[e] State for further distribution."²⁹³ In addition, the bill would impose civil monetary penalties for violation, and requires the Illinois Department of Environmental Protection to submit a report "to the Assembly and the Governor that reviews the latest available scientific research" concerning the health and environmental affects of DecaBDE, the findings from which must then be reviewed by the Illinois Department of Public Health.²⁹⁴

On January 13, 2005, a new bill (HB 83²⁹⁵) was introduced within the Environmental Matters Committee of the Maryland Assembly. It would ban, beginning October 1, 2008, the manufacture, processing, sale, or distribution within the State of any product or flame-retardant containing PDBEs, and would require the Maryland Department of Environment "to report back to certain committees of the General Assembly regarding decaBDE." ²⁹⁶The full House adopted the bill with amendments on 2/24/05, and forwarded it to the Senate Environmental Affairs Committee.²⁹⁷ By April 4, 2005, both the House and Senate had approved the bill.²⁹⁸

On February 24, 2005, a similar bill (HF 1299) seeking to ban the manufacture, processing, sale, or distribution of flame retardants containing PDBEs was introduced within the Minnesota House Commerce and Financial Institutions Committee.²⁹⁹ The bill's effective date varies depending on whether the PDBEs involved are pentaBDE or octaBDE by mass (January 1, 2006) or decaBDE by mass (January 1, 2008).³⁰⁰ A companion bill (SF 1789) was introduced in the Minnesota Senate and referred to the Senate Environment and Natural Resources Committee on March 17, 2005.³⁰¹

During January 2005, Connecticut State Senator Duff presented a bill (S.B. 785) seeking to ban PDBEs in state commerce by January 1, 2008. The bill was introduced within the Connecticut General Assembly and then referred to the Senate Committee on Environment.³⁰²

Lastly, during February 2005, the Montana House and Senate issued a joint resolution "supporting the phasing out of those [PDBEs] that are harmful to humans; support[ing] the testing of the people and the environment of Montana for PDBEs; encouraging the development of alternatives to PDBEs; [and] encouraging the availability of products containing alternatives to PDBEs..." ³⁰³The resolution expressly mentions how certain companies' [final] products use "less hazardous flame retardant chemicals and ...less flammable materials in manufacturing [*processing* than others]...including, IKEA [a Swedish company], Intel and others..." ³⁰⁴ It also mentions how "Maine, Hawaii, and Michigan banned the use of certain PBDEs in 2004 and California *and Europe* banned the use of certain PBDEs in 2003" (emphasis added). ³⁰⁵

2. *Cosmetics*

A bill modeled after the EU cosmetics regulation³⁰⁶ (AB 2025) was recently introduced in the California legislature. The sponsors of the bill, which “was intended to ban cosmetic or personal care consumer products containing chemicals identified as causing cancer or reproductive toxicity...[and it] apparently died behind-the-scenes”, withdrew it after it failed to win a consensus. “[It]...would have tied the California regulatory process to the European Union.”³⁰⁷

Unwilling to concede defeat, the bill’s sponsors subsequently introduced an amended bill (amended AB 2025).³⁰⁸ The amended bill “would have required all cosmetic and personal care products to be registered with the State of California with complete disclosure of all ingredients (including fragrances and flavoring) with specific data about the health effects of the ingredients and products. In addition, the amended bill would have effectively banned all products or ingredients that did not have a California ‘safe use’ approval as of January 1, 2006.”³⁰⁹ Although this bill was defeated, “AB 2025 supporters have publicly vowed to bring the issue back in California either by amending another piece of legislation or reintroducing the bill next year.”³¹⁰

3. *Toxic and High Volume Chemicals*

During 2003, a “group of scientists, public health advocates, labor unions and environmental advocates” introduced a bill in Massachusetts to reduce the use of toxic substances. Based largely on the EU proposed REACH regulation, the bill “would require substitution of 10 priority chemicals where safer alternatives exist.”³¹¹ This broad coalition supporting the legislation – the “Alliance for Healthy Tomorrow” – was formed to develop precautionary policies to address toxic substances and other perceived ‘evils’ such as global climate change and genetically modified (GM) food.³¹²

As recently as January 2004, “the California legislature³¹³ requested that the University of California, [Berkeley] investigate chemicals policy options [including the EU REACH regulation premised on the precautionary principle] for California and recommend a model for adoption” for improving the management and regulation of chemicals within the state³¹⁴

...California has yet to develop a comprehensive program to regulate or otherwise manage the production, importation and sale of chemicals and chemical products, including pesticides. As a consequence, the State is unable to identify the types, volumes and locations of use of industrial chemicals used in commerce and is unable to prioritize its resources with respect to chemicals management. California also has no comprehensive program (beyond federal TSCA) requiring manufacturers of chemicals or chemical products to evaluate their products for their potential to cause harm to the environment, workers or the public. This general lack of oversight is disturbing in light of evidence suggesting that at least 1,400 chemicals used in commerce are known or suspected to be carcinogens, reproductive toxicants, persist in the environment or accumulate in human tissues. *The REACH initiative in the European Union (EU) represents an unusual opportunity for California to improve its management of chemicals. A California initiative harmonized with the EU REACH would expand the ability of the State to manage chemicals in commerce while also encouraging innovation on the part of chemical manufacturers preserving access to the European market* (emphasis added).³¹⁵

Apparently, like-minded environmental advocates from Massachusetts³¹⁶ have joined efforts with California environmentalists in lobbying their legislators to ‘import’ EU precautionary principle-based chemicals management standards into the United States.

4. *Biotech Foods – State and Local Initiatives*

State Level Initiatives

During the past several years, different constituencies have endeavored at the state level to prevent the widespread proliferation of biotechnology within the U.S. food chain. The proposed legislation has been based on varying rationales, some consumer choice-focused (e.g., notification & labeling), some food safety-focused (e.g., concerning pharma and biopesticide-resistant crops and fish), some environmental focused, and still others economics-focused (e.g., concerning lost organic export trade to Japan and Europe in the absence of GM-free certification). Additional legislative proposals have sought to impose liability on farmers and/or GM seed companies for GM crop contamination. And, more recent initiatives advanced by anti-biotech advocates and organic farmers, which employ a ‘divide and conquer’ strategy, have successfully persuaded some farmers to promote ‘farmer protection’ proposals that effectively place ALL legal responsibility for crop contamination with the seed and drug companies.

2003 and Earlier

Numerous efforts were also made at the state level during 2003 to model new anti-biotech laws and proposals after EU anti-biotech (GM) rules. Had a large percentage of these bills been passed, they would have severely restricted the sale, planting or distribution of GM seed and food.³¹⁷ In Kansas, Montana, North Dakota, South Dakota and Vermont, for example, legislation was proposed that would require certification or registration to sell or grow GM varieties of crops. The bills introduced in Montana, North Dakota and South Dakota, for example, “were all concerned specifically with genetically modified wheat”.³¹⁸ Other bills introduced in Hawaii sought to require companies and/or farmers to notify and disclose to the public authorities the location of any planned crop field tests, and to contract with third parties to conduct safety evaluations.

Additional biotech-related bills were introduced during 2003 within the states of Arkansas, Montana and West Virginia. They sought to require the establishment of a biological-agents registry. Although they did not appear to focus specifically on agriculture (i.e., they probably cover biocide products as well), they “employed sufficiently broad definitions which could plausibly apply to products created through agricultural biotechnology.”³¹⁹

Other legislation proposed in the States of Hawaii, New York, Maine, Texas and Vermont sought to ban outright the planting of GM seeds and sale of GM products.³²⁰ In Massachusetts, legislation was proposed that would prohibit the open air planting of pharma-crops (i.e., crops modified to produce pharmaceuticals). California actually adopted a bill that “makes it illegal to spawn cultivate, or incubate any transgenic fish in the waters of the Pacific Ocean over which the state has jurisdiction.”³²¹

Furthermore, several bills were introduced during 2003 that would impose requirements for GM-free labeling and for the labeling of foods with GM ingredients. In New York, for example, proposed legislation set forth guidelines for GMO-free labels. The New York bill also “would require foods with GM ingredients to be labeled as such.” Similarly, in Michigan, Oregon, Rhode Island and Vermont, legislation was proposed that would require natural or processed foods with GM ingredients to be labeled as GM foods. And, Maine actually passed legislation that “imposes a civil violation for any manufacturer, distributor, processor, wholesaler or retailer who falsely labels any product such as commercial feed as made without genetic engineering or bioengineering.”³²²

During 2003, several states considered legislative proposals analogous to the EU ‘polluter’s pay’ principle directive.³²³ Those bills sought to impose liability on biotech companies and/or farmers engaged in the field testing of pesticide and herbicide-resistant food crops and on food crops used to make drugs (i.e., ‘biopharming’) for damages suffered as the result of cross-pollination.³²⁴ They include Hawaii³²⁵, Massachusetts³²⁶, Missouri³²⁷, Montana³²⁸, North Dakota³²⁹, New York³³⁰ and Vermont.³³¹ In fact, there is now a new bill before the Vermont legislature that would “hold seed companies strictly liable for the accidental spread of genetically-enhanced crops.”³³² “The liability protections conferred are based entirely on how a crop was developed, not on the actual properties of the crop or food itself.”³³³

2004 and 2005

During February 2005, new GM liability bills were introduced in several states that actually pitted farmers against seed and pharma companies. For example, a bill was recently introduced within the Vermont Senate (S.18) that would “hold seed companies *strictly liable* for the *accidental* spread of genetically-enhanced crops” (emphasis).³³⁴ Farm advocacy groups have ensured that it would do so in two ways. First, it would place legal responsibility squarely upon biotechnology companies, rather than farmers and grain elevators, for economic damages resulting from contamination by genetically modified crops. Second, the bill would essentially function as a ‘farmer protection statute’, insofar as it “would also prevent the manufacturers from suing farmers whose fields are contaminated by genetically engineered crops and are unintentionally growing these crops.”³³⁵ “The liability protections conferred are based entirely on how a crop was developed, not on the actual properties of the crop or food itself.”³³⁶ Similar bills were also recently introduced in both Montana (S.218)³³⁷ and North Dakota (S.2235).³³⁸

During May 2005, “the Vermont House Agriculture Committee voted unanimously against bringing to the full [Vermont] House a bill dealing with liability from genetically modified crops”.³³⁹ However, considering the close divisions within the committee on this issue, both opponents and proponents of the legislation were uncertain of its ultimate disposition. One of the bill’s major sticking points apparently is its strict liability provision, which, as previously noted, would hold seed manufacturers liable even for *unintended* consequences arising from the use of GM seeds. While “[s]upporters say that is the only way to ensure that manufacturers, not farmers, are liable... [o]pponents say that strict liability should be reserved for products that are known to be hazardous.”³⁴⁰

Coincidentally, a similar bill entitled, The ‘Food Integrity and Farmer Protection Act’ (AB 984), was proposed in California with support from both organic grower organizations *and* anti-biotech advocates. Like the Vermont bill, it “would give producers, grain and seed cleaners, handlers and processors [of conventional or organic crops] the right to sue biotechnology corporations if they are injured by the unintentional release, and subsequent contamination, of a genetically modified organism.”³⁴¹ This bill was proposed as a preemptive measure “to protect our farmers before [the GM crop contamination being experienced in other parts of the country] comes to California.”³⁴²

If one were to view these initiatives as purely domestic in focus and within the context of health and environmental protection as bill proponents would like, one would surely miss the point. Actually, foreign economic motivations significantly underlie organic farmers’ general support for anti-biotech measures. Apparently, last year (2004), “a *Japanese* retailer association said it would refuse any rice from the Golden State if it allowed the cultivation of a genetically modified crop.”³⁴³ The *Japanese* association’s admonition effectively negated the voluntary protocol previously worked out between the California rice industry and the Sacramento-based [company] Ventria Bioscience to grow a pharmaceutical rice crop in Southern California.³⁴⁴ As a result, Ventria was forced to announce that it would “grow its commercial pharmaceutical rice crop in Missouri.”³⁴⁵ But the story does not end here.

Ventria experienced similar domestic and *foreign 'market' pressures* in Arkansas. During February 2005, the Arkansas Rice Growers Association, concerned that Ventria was planning to “grow rice ‘engineered with human genes’” in neighboring Missouri, lobbied an Arkansas legislator, State Sen. Jerry Taylor (D. Pine Bluffat), to prepare a bill that would “regulate the cultivation of pharmaceutical-producing plants... According to Taylor... ‘We’re either going to try to have a ban on it in Arkansas or at least have a controlled-environment requirement.’”³⁴⁶ Despite Taylor’s remarks that “their commercial production poses potential contamination risks, via seed or pollen, to the food supply and the environment”, industry’s support for such legislation is quite telling and shows that it is based on economics rather than health or environmental considerations.³⁴⁷

Rice exports from Arkansas to several countries, including many in the European Union, require certification from the Arkansas State Plant Board ‘that no GMO rice is in commercial production in Arkansas,’ said [Association] Director Darryl Little... ‘We’ve always been able to check that box and just say, We don’t produce any, so it’s not an issue,’ Little said. Soon Missouri may not be able to say that (emphasis added).³⁴⁸

Interestingly, Missouri, *at least for this year*, will actually be able to say that! Although it had already “obtained preliminary approval from the Agriculture Department to plant some 200 acres in southeast Missouri with rice that is genetically engineered to produce human proteins for use in drugs”, Ventria later encountered significant resistance in Missouri from an alliance of “rice growers, major food companies and environmental groups³⁴⁹ that tried to prevent companies like [it] from getting permission to convert croplands into factories for drugs.”³⁵⁰ In particular,

[The] company encountered an 11th hour uprising by rice farmers who feared accidental contamination of their crops and damage to a \$100 million industry that depends heavily on exports. Anheuser-Busch’s recent declaration that it would not buy Missouri-grown rice if Ventria planted in the Bootheel sent Ventria scurrying to find sites elsewhere for its rice... [As a result, Ventria]... has given up on planting... pharmaceutical rice... in the state this year and instead is aiming at North Carolina... On Wednesday [April 27th] Ventria submitted requests in Washington for new permits that would allow the company to plant on 70 acres at two undisclosed locations in North Carolina... [It] hopes to plant its pharmaceutical rice in Missouri next year... (emphasis added).³⁵¹

Apparently, during 2003, other state legislatures tried but failed to ban biopharm food crops, including Colorado, Hawaii, Massachusetts, Texas and Vermont.³⁵² The Associated Press reported this past April,, however, that the State of Oregon Senate Environment and Land Use Committee is currently reviewing such a bill (SB 570)³⁵³, which, if passed, would make Oregon “the first state to ban the crops”. The bill was introduced by Physicians for Social Responsibility, an Oregon NGO.³⁵⁴

As can be plainly seen from these examples, the impact of indirect foreign government-driven foreign export market pressures should not be underestimated. And, if the Europe Union or its individual member states are permitted to continue their imposition of non-science-based precautionary regulatory pressures having U.S. domestic market consequences, Japan and other countries will be quick to follow!

Local Level Initiatives

“Since 2002, towns, cities and counties across the US have passed resolutions seeking to control the use of genetically modified organisms (GMOs) within their jurisdiction. Close to 100 New England towns have

passed resolutions opposing the unregulated use of GMOs; nearly a quarter of these have called for local moratoria on the planting of GMO seeds. In 2004, three California counties, Mendocino, Trinity and Marin, passed ordinances banning the raising of genetically engineered (GE) crops and livestock.”³⁵⁵

During early March 2005, the Associated Press reported that Sonoma County would “allow voters to decide whether to become the fourth California county to ban genetically modified organisms.”³⁵⁶ Like its predecessors, the Sonoma measure would “prohibit the cultivation of genetically altered plants and animals for 10 years.”³⁵⁷ This measure is due to be voted on sometime during November 2005.³⁵⁸

Much to the chagrin of anti-biotech activists, however, *family farmers* successfully defeated, during November 2004, anti-biotech initiatives proposed in two other California counties (Butte and San Luis Obispo Counties) that were designed to ban the use of agricultural biotechnology. It was reported also that “[a] third measure in Humboldt County was deemed so ill-worded it was abandoned even by its authors before voters went to the polls, and also failed.”³⁵⁹

In response, and perhaps, as an anticipatory counter-measure, to such ordinances, state legislators and industry representatives have closely worked together to introduce ‘preemptive seed laws’ that essentially ensure uniform regulation of biotech seeds and agriculture throughout a state. Judging from a recent bill passed by the Iowa House (HF 642)³⁶⁰, such laws would prevent “a local governmental entity...from adopting or enforcing legislation which relates to the production, use, advertising, sale, distribution, storage, transportation, formulation, packaging, labeling, certification, or registration of agricultural seed.”³⁶¹ “As of May 11, 2005, the following states have secured passage of such laws. They include Georgia³⁶², Pennsylvania³⁶³, Iowa³⁶⁴, Idaho³⁶⁵, North Dakota³⁶⁶, South Dakota³⁶⁷, Kansas³⁶⁸, Indiana³⁶⁹, Arizona³⁷⁰, Oklahoma³⁷¹, and West Virginia³⁷². Similar bills “are rapidly working their way through the legislatures of” Florida³⁷³, North Carolina³⁷⁴, Ohio³⁷⁵, and Texas³⁷⁶.

5. *Climate Change*

During the past decade, a number of states have passed legislation establishing greenhouse gas (GHG) registries and carbon reporting requirements.³⁷⁷ Several other states meanwhile have enacted laws that regulate carbon dioxide (CO₂) as an air ‘pollutant’³⁷⁸ along with other GHGs deemed to contribute to global warming.³⁷⁹ Although California may appear to be the most forward-looking jurisdiction as regards ‘climate change’ legislation, it is actually the northeastern states, led by New York and Massachusetts that have aggressively pursued an innovative but highly questionable regional approach to addressing GHG emissions. In fact, six New England governors have already entered into a Kyoto-like “compact with five Eastern Canadian Premiers to reduce regional GHG emissions to 1990 levels by 2010 and 20 percent below 1990 levels by 2020.”

New York and the Northeast Region - RGGI

Background

During June 2002, New York State Governor Pataki included within the State’s Energy plan a greenhouse gas reduction target of 5% below 1990 levels by 2010, and 10 percent below 1990 levels by 2020. During May 2003, the governor invited other northeastern states to join New York in a regional market for greenhouse gas reductions.”³⁸⁰ And then two months later, on July 24, 2003, he “announced a *regional* program to curb emissions of carbon dioxide *from power plants*, otherwise known as the Regional Greenhouse Gas Initiative (‘RGGI’).

Governor Pataki's invitation and the announcement that followed had been preceded by the introduction of a bill within the New York State Assembly during 2002 that sought to cap carbon dioxide emissions.³⁸¹ Although, that bill was never acted upon, it was recently reintroduced within the New York State Assembly this past January 2005.³⁸² As of this writing, it is not certain whether this new bill will ever make it out of committee.

In addition to imposing a mandatory cap on the carbon dioxide emissions of locally-based power plants, RGGI would also entail the establishment of a GHG registry and an emissions trading scheme.³⁸³ Besides New York, the following states have agreed to work towards developing a regional model framework agreement - RGGI (CT, VT, NH, DE, ME, NJ, MA, and RI); Maryland and Pennsylvania remain observers.³⁸⁴ In addition, the agreement is likely to include the five Canadian provinces already working with the New England States, as the following two references clearly show:

The states *and provinces* participating in the Regional Greenhouse Gas Initiative (RGGI) are *committed to developing* a regional greenhouse gas cap-and-trade program... (emphasis added).³⁸⁵

States showing leadership in developing regulations and setting GHG reduction targets... - *Northeast U.S. & Canada Initiative RGGI & RGGR [Regional Greenhouse Gas Registry]...Other markets in development - e.g., RGGI and Canada Offsets Initiative* (emphasis added).³⁸⁶

And, it will include an unknown number of EU Member States, as discussed below. The RGGI was to have been executed by the end of April 2005, but delays (unresolved issues) have required that it be signed sometime during late summer or early fall 2005.

Once RGGI is executed by the group of participating states, it must then be implemented at the state level by each. According to RGGI government stakeholders, state implementation could occur either pursuant to a legislative OR an executive administrative rule-making process. The legislative route is usually more open and transparent, and of interest to the public than an administrative hearing, which tends to be more technical, and thus, less well attended and observed by the broader public. A number of RGGI government stakeholders have concluded that, while implementation by legislation is *not* legally necessary to implement RGGI³⁸⁷, they may nevertheless seek legislative approval for political reasons.

Apparently, the seeds of the RGGI had been sown long before the first Bush Administration entered the White House. According to the Center for Strategic and International Studies (CSIS), a Washington DC think-tank, "The Clinton Administration [had previously] encouraged the states to act unilaterally in the area of climate change both as a way to achieve substantive change as well as to put pressure on Congress." And, CSIS has seemingly carried the Clinton Administration's climate change torch to the present as it recommends to the EU how best to engage the U.S. on climate change policy. In this regard, CSIS has advised the EU to practically bypass the White House in favor of the states.³⁸⁸

[T]he EU must for its part recognize that the federal government is not the only locus of authority in the United States. A constructive US-EU dialogue on climate change policy *must include* state governments. *Brussels would acknowledge the leadership of states* if the Commission proposed a new transatlantic forum dealing with climate change which included state officials (emphasis added).³⁸⁹

And judging from recent reports, it would appear that these and other efforts have finally prompted the Bush Administration to the negotiating table.³⁹⁰

Objectionable Features of RGGI

Despite the evolving transatlantic climate change détente, a precautionary principle-based RGGI remains inimical to U.S. economic interests for a number of reasons. First, it is clear that such a regional initiative, by itself, will have no measurable scientific and environmental impact on global warming. Even Greenpeace and Friends of the Earth have publicly admitted that the more burdensome emissions limitations called for by the Kyoto Protocol would have only a negligible environmental effect on planetary global warming. And, according to one group of international economists, “Europe’s Emissions Trading Scheme (ETS) [as well] is unlikely to lead to a reduction in carbon dioxide emissions”.³⁹¹

Second, the RGGI, as structured, *will* interfere with interstate commerce, to the extent energy imported by power plants into the RGGI region from non-RGGI states is indirectly regulated and subject to a process-based energy / GHG tax. The RGGI will likely impose such a tax to prevent GHG emissions ‘leakage’ (i.e., obtaining lower priced but higher GHG-emitting energy from outside of the RGGI region), by equalizing the cost of ‘RGGI’ and ‘non-RGGI’ energy.

Unfortunately, recently disclosed RGGI government stakeholder prognostications reveal that higher rather than lower consumer energy prices will follow for at least a ten year period – i.e., 2015.³⁹² These higher (mostly natural gas) prices will derive from a host of different factors, including increased infrastructure and construction costs, the retirement of coal and oil-based power generating plants, the decommissioning of certain nuclear plants failing re-licensure, and the inability of remaining online capacity (mostly natural gas) to satisfy the growing regional energy demand.³⁹³ Consumers in this regard include homeowners as well as energy-consuming businesses (product manufacturers as well as service providers). And, these price increases are likely to be compounded by the higher product and service prices that these businesses will inevitably pass downstream to consumers. As a result, companies operating at a local, state and regional level will be placed at a competitive disadvantage vis-à-vis their non-RGGI competitors (domestic as well as international). Even if some kind of transparent consumer rebate were provided to mitigate the impact of energy cost increases, energy producers would likely be handed the bill for that rebate and be compelled to devise a less transparent means of passing that cost downstream to consumers.

Due to their concern about the public perception and acceptance of potential energy price increases and only de minimis environmental benefits, RGGI government stakeholders have incorporated overly optimistic assumptions within their economic and energy efficiency modeling that do not reflect actual market conditions. In addition to the costs noted above, their modeling also substantially understates the economic and social costs to industry, local and regional employment, and technological research and capital investment, especially as they relate to the retirement of coal and oil-based plants and to the moratorium placed on the construction of new plants that could employ ‘clean coal technology’, which happen to reflect an *other than* energy-neutral stance in favor of ‘fuel-switching’. Their modeling also overstates projected health and environmental benefits, and fails to reflect a satisfactory state-by-state emissions cap and allowance allocation formula. These modeling flaws may, in part, be attributable to the inclusion of data from eleven, and perhaps, even thirteen states (participating, observer, and RGGI border states, in order to skew results in their favor), rather than only from the nine participating states.³⁹⁴ These modeling flaws may also, in part, be attributable to the failure of RGGI government stakeholders to take into account how actual energy prices within the EU have risen since the Kyoto Protocol went into effect and how they will continue to rise by double digit percentages, notwithstanding ‘ironclad’ EU Commission modeling assumptions to the contrary.³⁹⁵ Furthermore, these flaws may be attributable to the failure of RGGI government stakeholders to take into account the actual poor performance and inherent flaws of the EU ETS allocation system.³⁹⁶

Third, the U.S. Congress has not yet adopted federal legislation regulating carbon dioxide or other GHG emissions, and the Bush Administration has affirmatively renounced America's prior signature to the Kyoto Protocol. Yet, since 2003, the Northeastern Governors, negotiating mostly behind closed doors, have endeavored to efficiently structure such an exchange and to finance the allocation of emissions caps and allowances among the states. Also, northeastern state attorneys general have quietly litigated and employed alternative legal theories in different federal courts in an attempt to establish clearer statutory and constitutional authority to regulate carbon dioxide emitted into the ambient air space of multiple states.³⁹⁷ And, the Canadians and Europeans are closely following these developments and, as noted above, are being invited to influence them.³⁹⁸ For example,

RGGI's launch has sparked great interest in Europe, where an even larger experiment with GHG trading began on January 1, 2005. There have already been informal contacts between state officials and officials of the European Commission and European member states to share information on how the new European Emissions Trading System (EU ETS) is developing. These informal contacts may provide opportunities to explore linking issues that will be useful for any future greenhouse gas program seeking to trade with the EU ETS. (emphasis added).³⁹⁹

And, even the Japanese are watching RGGI very closely and considering how to eventually link up with RGGI states individually or collectively should the EU succeed in doing so.⁴⁰⁰

When questioned, Pataki aides and other RGGI government stakeholders simply respond that RGGI is not yet a 'done deal', that the litigation has nothing to do with RGGI⁴⁰¹, and that, in any event, the RGGI is merely a regionally focused state-level matter that is of no concern to federal authorities.⁴⁰² However, the facts appear to speak louder than their words.

A significant number of states, mostly located in the Northeast and the West Coast, appear to have *adopted a three-pronged approach to increasing pressure on the federal government to adopt a comprehensive GHG regulatory program*. First, a number of states are taking steps to establish their own GHG regulatory programs. For example, California is promulgating regulations to curb GHG emissions from mobile sources. In addition, nine Northeastern states are working on the Regional Greenhouse Gas Initiative (RGGI), a cap-and-trade program aimed at power plants. Officials from the RGGI reportedly have entered into talks with EU officials about strategies for integrating the RGGI and the EU ETS. The states also are working through the courts. Eleven states and the District of Columbia have challenged EPA's determination in 2003 that it lacks authority under the Clean Air Act to regulate GHGs for climate change purposes. In addition, eight states have brought a federal district court lawsuit against a group of four power companies and the Tennessee Valley Authority, alleging that GHG emissions from the defendants' power plants are a "nuisance" and requesting that the court impose emission limits. Finally, several states are using their clout as shareholders to put pressure on companies and the government. The state treasurer for California, who runs a pension fund with approximately \$166 billion in assets, has joined with several other state treasurers in filing climate-related shareholder resolutions with major companies.^{403 404}

Fourth, the RGGI was *designed* to be held out as a model to the nation⁴⁰⁵ – i.e., to be quickly expanded to other U.S. states and regions and to cover other U.S. carbon dioxide emissions sources.⁴⁰⁶ Indeed, RGGI documents and environmental press reports indicate that RGGI is likely to be 'dove-tailed' with California's efforts to establish its own regional GHG emissions trading scheme

with other Western states.⁴⁰⁷ California has already established a contentious state-wide GHG cap on auto carbon dioxide emissions that is likely to result in a \$1,000 or more increase in automobile prices there. These rules are now being legally challenged by major automakers.⁴⁰⁸

Even worse, the RGGI could potentially serve as a template for the enactment of other regional level health and environmental regulatory agreements focusing on non-climate change issues among U.S. states that are modeled after different precautionary-principle-based EU regulations. This could adversely affect a broad array of U.S. agricultural and industrial products, including biotech foods, beef, poultry, high volume chemicals and downstream products using or incorporating chemicals, such as autos, computers, electronics, appliances, cosmetics, flame retardants and clothing.

Fifth, no matter what RGGI government stakeholders publicly claim, the RGGI *will be international* in scope.⁴⁰⁹ In order to generate the volume threshold of emissions trades necessary to reduce the price of 'within the cap' GHG emissions credits purchased and sold by power plants, the size of the emissions trading market would need to be expanded far *beyond the RGGI region*. Also, a successful RGGI would require that RGGI states establish indirectly more than informal linkages with other state and regional trading regimes within the U.S. that already have international linkages⁴¹⁰, as well as, direct linkages with the national or regional emission trading schemes of foreign countries (e.g., those existing within the European Union). In addition to performing market oversight functions, a successful RGGI would also entail some degree of *formal interstate and international regulatory coordination, such as through a Mutual Recognition Agreement, executed between foreign countries and the RGGI regional authority implementing the 'Model Rule' that each RGGI participant has signed, or with individual participating RGGI states.*⁴¹¹ This would be necessary to ensure that U.S. companies can purchase the foreign GHG credits they require from Europe. There is also a genuine need to ensure accessibility to *international* 'outside the cap' GHG emissions 'offsets' (i.e., from Kyoto Protocol developing country clean development mechanism projects - outside the RGGI region) to significantly reduce the costs of achieving emissions reductions within the RGGI region.⁴¹²

Kenneth Colburn, Executive Director for the Northeast States for Coordinated Air Use Management (NESCAUM), has publicly acknowledged that RGGI has always been internationally focused. "[RGGI]"*may even include linking up with the Europeans in a backdoor trading scheme on emissions... 'I don't see why our own individual power plants couldn't register and purchase allowances in the European system,' Colburn said*" (emphasis added).⁴¹³ These sentiments were also expressed by Christopher James, Director of the Connecticut Department of Environmental Protection⁴¹⁴.

In terms of other schemes such as RGGI linking with the EU ETS, as we understand the currency issue, as long as the states or regions have in place an enforceable cap which has certainty in terms of expectations, there is a measurement verification protocol, real reductions are occurring, and offsets are allowed under some sort of defined process, there is no reason why RGGI could not link up with other trading schemes - be they part of Kyoto or sub-regional schemes that may come out through Canada, or Australia for example. This is something that we are focused on at the moment (emphasis added).⁴¹⁵

The European Union appears to have had the same understanding. Even before the Kyoto Protocol went into effect this past February 2005, it had seriously considered expanding its ETS to the RGGI states, notwithstanding the contentious legal issues that might arise.

"Article 25 of the EU ETS Directive allows the option of linking the EU ETS with emissions trading schemes established by other Annex I (developed)_Parties to the [Kyoto] Protocol through a Mutual

Recognition Agreement. Use of Article 25 might, for example, allow the emerging Canadian trading program, or a scheme in Japan, to be linked to the EU ETS...*This expansion mechanism could play a significant role in the future global climate change debate* because it essentially allows for the creation of a Kyoto-equivalent trading system without the Kyoto Protocol entering into force.

*One interesting unanswered question is whether individual states in the United States, some of which are taking significant measures to address climate change, could link into the EU ETS despite the current federal government's decision not to ratify the Kyoto Protocol...In addition, many Australian states, led by New South Wales, are exploring the possibility of creating their own emissions schemes, which could potentially link together and create a de facto cross nation scheme along the lines of the Kyoto model despite Australia having refused to ratify the Kyoto Protocol. There may be constitutional limitations that would have to be carefully considered before any state-based linking could occur. However, assuming such constitutional challenges could be overcome, U.S. and Australian state-level linking with the EU ETS, along with the linking of other non-EU regimes via Mutual Recognition Agreements, could in effect create a quasi-Kyoto regime covering vast expanses of the developed world. The preamble to the Linking Directive anticipates this possibility and indicates that such linking would not occur unless the Kyoto Protocol came into force” (emphasis added).*⁴¹⁶

These revelations lead to a number of tentative conclusions. First, the RGGI will contravene U.S. federal climate change policy.⁴¹⁷ Second, it may also likely violate the U.S. constitutional law doctrine of federal preemption^{418 419 420} and the interstate commerce clause.^{421 422 423} Third, the RGGI may substantially impair the plenary authority of the President and the Congress over foreign affairs,^{424 425} including foreign commerce.⁴²⁶ Fourth, the RGGI will likely directly influence U.S. relations with foreign countries^{427 428}, and indirectly undermine current U.S. strategic positions advanced at international fora such as the United Nations and the current Doha Round of World Trade Organization (‘WTO’) negotiations. Indeed, as the jurisprudence surrounding the interstate commerce clause reveals, several of the provisions of the WTO SPS and TBT Agreement provisions that circumscribe the ability of governments to regulate international trade (e.g., nondiscrimination and no unnecessary obstacles to trade/least trade restrictive alternative available), are analogous to similar U.S. constitutional law benchmarks. Fifth, the RGGI could help to establish the use of the precautionary principle as an exercise of ‘state (regional and ultimately national) practice’, as a matter of binding customary international law, although the U.S. has affirmatively decided *not* to remain a party to the Kyoto Protocol.⁴²⁹

Motor Vehicle GHG Emissions

If New York’s involvement in RGGI were not enough, on May 19, 2005, the New York State Department of Environmental Conservation issued a notice of proposed rulemaking to amend Parts 200 and 218 of Title 6 NYCRR relating to “emission standards for motor vehicles and motor vehicle engines....The purpose of the amendment is to revise the existing low emission vehicle (LEV) program to incorporate modifications California has made to its vehicle emission control program to reduce greenhouse gas (GHG) emissions.”⁴³⁰ These rules are more extensively discussed below.

New England States

During April 2001, Massachusetts became the first state to formally regulate the CO₂ emissions of coal and oil fired power plants. The regulations impose “specified reduction levels for several pollutants, including a 10% reduction from 1997-1999 CO₂ levels.”⁴³¹ Although the

regulations do not require the use of a particular method to achieve reductions, natural gas conversion is clearly preferred. Plants using pollution control equipment must comply by 2006, whereas plants undergoing a 'fuel shift' conversion have until 2008 to comply. Plants unable to achieve reductions themselves are encouraged to undertake other measures such as securing sequestration credits or purchasing emissions trading credits.⁴³² During May 2004, the Massachusetts Climate Action Plan was released. It "calls for the reduction of greenhouse gas emissions to 1990 levels by 2010 and an additional 10% by 2020."⁴³³

During 1999, "New Hampshire became the first state to pass legislation authorizing the creation of a greenhouse gas registry." On July 1, 2002, New Hampshire's Clean Power Act (SB 284) took effect, setting "annual... caps on emissions of CO₂, SO₂, and Nox."⁴³⁴ It requires CO₂ emissions "to be reduced to 1990 levels by the end of 2006", imposes monetary penalties in the event of noncompliance, and establishes a 'cap-and-trade' system pursuant to which entities may purchase emission credits through a national, regional, or other trading program.⁴³⁵

In 1990, Connecticut became the first state to pass a broad global warming law that required specific actions for reducing CO₂. The Act⁴³⁶ "establish[ed] a broad range of energy conservation measures, including revisions to the building code to maximize energy efficiency and requirements that the state purchase energy efficient appliances and vehicles. The Act also established goals for improving public transportation and requires the Connecticut Public Transportation Commission (CPTC) to monitor progress in achieving them."⁴³⁷ During March 2004, Connecticut released "a GHG reduction plan designed to meet the agreement signed by the New England Governors/Eastern Canadian Premiers organization."⁴³⁸ The plan includes a renewable portfolio standard, vehicle emission standards starting model year 2007, green buildings, and energy efficiency standards.⁴³⁹

During 2004, Connecticut adopted legislation and developed regulations "to establish a clean car program in Connecticut consistent with... and on the same implementation schedule as... the recently enacted California low emission vehicle II (LEV II) program."⁴⁴⁰ That program requires vehicle manufacturers to "provide new cars, light trucks and sports utility that meet stricter emissions standards starting with model year 2008. Connecticut will be working to establish greenhouse gas emissions standards for vehicles by the end of 2005. Under these standards, new motor vehicles beginning with model year 2009 will be required to emit 30% fewer greenhouse gases than would have been emitted without this program."⁴⁴¹ On January 6, 2005, the Connecticut Governor's Steering Committee on Climate Change announced that it had "submitted a draft of the [State] Climate Change Action Plan 2005 to the General Assembly for their review and comment... [T]he recommendations [call for] greenhouse gas emissions... [reductions] to 1990 levels by 2010 and to 10% below 1990 levels by 2020..."⁴⁴²

New Jersey first addressed the issue of climate change during March 1998 through issuance of a governor-supported Administrative Order (1998-09) which established the goal of reducing the state's total GHG releases to 3.5 percent below 1990 levels by 2005.⁴⁴³ The State sought to achieve the statewide 3.5 percent reduction by enlisting the voluntary assistance of public and private parties. For example, the State entered into separate voluntary 'covenants' with the State's largest utility⁴⁴⁴, its colleges and universities and its public schools, pursuant to which each party pledged to reduce their GHG emissions. During April 2000, New Jersey adopted an Open Market Emissions Trading Rule to promote the generation and banking of greenhouse gas credits.⁴⁴⁵ Thereafter, New Jersey "experiment[ed] [with] a multi-tier system for permitting that incorporate[d] greenhouse gases into traditional permitting, despite the fact that they were *not* regulated substances [(e.g., CO₂)]."⁴⁴⁶

During January 2003, however, the State adopted binding regulations requiring large stationary sources to report emissions of the greenhouse gases carbon dioxide (CO₂) and methane (CH₄). These regulations revised the definition of distillates of air... to remove CO₂ from the chemical species listed as [inert] distillates of air, effectively classifying CO₂ as an air

contaminant” in the absence of a formal rule change.⁴⁴⁷ During October 2004, New Jersey issued a notice of proposed rulemaking amending the relevant statutes to make the reclassification of CO₂ legally valid.⁴⁴⁸ “While the proposed amendments would not regulate emissions of CO₂, they would enable [the State] to do so at a later date.”⁴⁴⁹

California and the Western States – RGGI II

During September 2003, “the Governors of California, Oregon, and Washington launched the West Coast Governors’ Global Warming Initiative [WCCGWI]. . .”⁴⁵⁰ Pursuant to this initiative, the three states were to develop joint policy recommendations focusing on ways in which they could reduce GHG emissions. These recommendations were finalized in a November 2004 report and endorsed by the WCCGWI Executive Committee.⁴⁵¹ In addition to endorsing the report’s recommendations, the Committee **advised the states to utilize their stakeholder processes to gather additional recommendations that could lead to adoption of overall state and regional level GHG emissions reduction goals, vehicle GHG reduction standards, a regional market-based carbon allowance program and a renewable energy/alternative fuels program.**⁴⁵²

California had previously adopted legislation first creating a nonprofit entity to administer a statewide voluntary greenhouse (GHG) emissions registry back in September 2000. California entities were to use the registry to “record and register voluntary GHG emissions reductions made . . . after 1990” and to establish an emissions baseline that would apply against “any future federal greenhouse gas emission reduction requirements.”⁴⁵³ During July 2002, California’s governor signed into law (the Pavley law) regulations requiring the development and adoption of the nation’s first greenhouse gas emission reduction standards for automobiles (passenger cars and light duty trucks) to be applied to model years 2009 and thereafter.⁴⁵⁴ “The law requires the California Air Resources Board (CARB) to regulate [greenhouse gases](#) as part of the California Motor Vehicle Program.”⁴⁵⁵ As discussed later in this paper, this law subsequently came into conflict with the August 2003 EPA decision not to regulate GHGs from motor vehicles under the federal Clean Air Act. That decision then led to legal challenges by northeastern state attorneys general.

In a June 2004 report, the CARB estimated that those standards would likely add around \$1000 to the cost of a new car in 2014, and \$1064 more by 2016 (Industry experts dispute this low amount; they estimated “that the regulation [which requires a 30 percent GHG reduction in new cars] [would] add about \$3,000 to the upfront cost of the average car or truck”).⁴⁵⁶ The CARB recommended that the standards be adopted by January 1, 2005 and put into effect no earlier than January 1, 2006.⁴⁵⁷ During September 2004, CARB adopted the rules necessary for the Pavley law to come into effect — rules subject to further legislative approval. On December 7, 2004, the Alliance of Automobile Manufacturers, Association of International Automobile Manufacturers and California auto dealers challenged the Pavley law in federal court (U.S. District Court in Fresno, California).⁴⁵⁸ The plaintiffs made the following argument:

[T]hat as greenhouse gas emissions from cars are largely a byproduct of their fuel economy, regulating emissions like carbon dioxide would indirectly require automakers to improve fuel efficiency significantly. And, since the federal government has sole authority to regulate fuel economy, Toyota, G.M. and several other automakers contend in their lawsuit that California is encroaching on Washington's jurisdiction.⁴⁵⁹

Notwithstanding this suit, which remains in progress as of this writing, the Pavley law continues to adversely affect the auto industry. In fact, during April 2005, Canada’s threat to adopt California’s GHG reduction rules on Canadian-bound auto exports prompted automakers to reach a less rigorous but equally contentious GHG reduction agreement with Canada.⁴⁶⁰

On June 1, 2005, California Governor Arnold Schwarzenegger signed Executive Order S-3-05 establishing statewide GHG emissions reduction targets. These targets, which “call for a reduction of GHG emissions to 2000 levels by 2010; a reduction of GHG emissions to 1990 levels by 2020; and a reduction of GHG emissions to 80% below 1990 levels by 2050,”⁴⁶¹ are merely symbolic and *political* in nature⁴⁶² – they do little, if anything in the immediate future to address *global* climate change. The order vests the Secretary of the California EPA with the authority to “coordinate oversight of the efforts made to meet the targets with: the Secretary of the Business, Transportation and Housing Agency, Secretary of the Department of Food and Agriculture, Secretary of the Resources Agency, Chairperson of the Air Resources Board, Chairperson of the Energy Commission, and the President of the Public Utilities Commission”.⁴⁶³ It would seem, based on this language that, the obligation/duty to reduce GHG emissions would be imposed upon every business sector operating within the State of California, while the criteria and procedures for determining and actually allocating emissions caps and allowances among business sectors and between emitters within each sector would be left to the discretion of California regulators.⁴⁶⁴

Since 1997, Oregon has required that new utility emissions be “17 % less than the most energy efficient plant available.” CO₂ emissions have been “capped at 0.7 pounds of CO₂ per kilowatt-hour for base-load natural gas-fired power plants”.⁴⁶⁵ While this cap was lowered to 0.675 pounds per kilowatt-hour in 1999, facilities have been entitled to satisfy that requirement either by implementing projects directly or by purchasing CO₂ offsets from a Climate Trust at a cost of \$0.57 per ton.⁴⁶⁶ The Oregon law is similar to a prior Washington State law that made “gaining permits for building new power plants and upgrading older facilities conditional on mitigating any greenhouse gas emissions.”⁴⁶⁷ “In 2001, Oregon enacted HB 2200⁴⁶⁸, to create a forestry carbon offset accounting system to increase carbon sequestration in state forests. It requires a CO₂ registry and inventory.”⁴⁶⁹

During 2002, Washington State enacted HB 2326⁴⁷⁰, a non-regulatory statute “establishing the Washington Climate and Rural Energy Development Center within the Washington State University energy program. [The Center’s purpose was] to gather[] greenhouse gas emissions information and voluntary reduction information...[and to] function as “a clearinghouse of scientifically-based information on addressing climate change and clean energy.”⁴⁷¹ During December 2004, it was reported that Washington Representative Ed Murray, a Seattle Democrat who chairs the state House Transportation Committee, was drafting a bill that “would follow California’s lead in establishing tough new automotive [GHG emissions reduction] standards.”⁴⁷² The bill, as amended, was passed by the Washington State House on March 17, 2005.⁴⁷³ Following subsequent concurring amendments, it was then also passed by the Washington State Senate on April 20, 2005.⁴⁷⁴

Besides carbon dioxide emissions limitations a number of states have adopted other measures to reduce global warming. For example, 19 western states have entered into

[A]n alliance to boost energy efficiency and the use of renewables in the power grid...Some states are seeking technological innovations to solve the problem. For example, the Ohio Coal Development Office funds projects that capture and sequester carbon dioxide emissions from coal combustion, while the South Carolina Hydrogen Coalition is promoting economic development by building expertise in hydrogen technology. Others are taking even stronger steps: for example, 16 states have mandated that electric utilities – which account for nearly one-third of greenhouse gases – generate a certain amount of power from renewable sources. During mid-November 2004,] the governors of California, Oregon and Washington...announced 36 recommendations to fight global warming, including tightening emissions and energy efficiency targets, investing in fleets of hybrid gas-electric vehicles, and boosting retail energy sales from renewables at least one percent a year through 2015.⁴⁷⁵

Local Initiatives

On February 22, 2005, Seattle Mayor Greg Nichols announced his intention to “lead a campaign to get U.S. cities to adopt [the terms of the] Kyoto Protocol.” Seattle Washington had previously adopted the Kyoto Protocol in 2001. Nichols also noted that he would work to pass a ‘clean-car’ bill similar to the law adopted in California that imposes more stringent emissions standards for cars sold in Washington.⁴⁷⁶

C. State and Local Law Initiatives to Adopt the Precautionary Principle

During the past several years, several American states, besides Massachusetts in 2001⁴⁷⁷, have considered adopting the Precautionary Principle formally as state law. They include New Hampshire in 2000⁴⁷⁸ and most recently Hawaii in 2004⁴⁷⁹. Former Governor Christine Todd Whitman of New Jersey had considered employing the precautionary principle in 2000.⁴⁸⁰ During June 2003, the City of San Francisco became the first city within the United States to actually adopt the Precautionary Principle as municipal law. The ordinance, known as the Precautionary Principle Ordinance, is intended as a “guiding principle of environmental policy in that city.”⁴⁸¹ During September 2004, the City of Portland, Oregon became the second U.S. municipality to do so.⁴⁸²

U.S. advocates of the precautionary principle have recently begun to apply this nonscientific touchstone in the hope of revising municipal⁴⁸³ land use laws, which they argue currently promote social and ethical injustice. “Now an enlightened organization of local government officials has recognized the profound harms caused by unethical land use decisions, and has begun to advocate for the precautionary principle as a way of doing better. In September 2003, the National Association of County and City Health Officials (NACCHO) passed resolution 03-02”, which incorporates the precautionary principle into land use planning and practice:

After calling for the precautionary principle, the NACCHO resolution suggests three ways to make it work: integrate public health perspectives and practice (which are based on prevention) into land use planning; ensure early, sustained, and effective participation by affected community members in all stages of land use and zoning decisions; and dedicate more resources to getting public health people involved in land use decisions through training, development of tools, technical assistance and other support.⁴⁸⁴

IX. EFFORTS TO REFORM U.S. FEDERAL LAW

A. State Attorneys General Lawsuits on Climate Change

State Attorneys General have filed several lawsuits in the past few years hoping to move climate change policy from the elected branches to the courts. They commenced these actions precisely because neither the Congress nor the Administration have chosen to address climate change issues in the manner advocated by European leaders and transatlantic environmental groups – i.e., by ratification of the Kyoto Protocol.

On August 28, 2003, the U.S. Environmental Protection Agency published a Notice of Denial that rejected a previous 1999 petition⁴⁸⁵ filed by several ENGOs, including Greenpeace. That petition called for the EPA to regulate motor vehicle GHG emissions as ‘air pollutants’ under the Clean Air Act (CAA). The Notice of Denial reflected the EPA’s determination that it “lack[ed] the authority under the CAA to regulate for the purposes of addressing global climate change.” It reasoned that the CAA did not expressly provide the EPA with authority to regulate GHGs, and that Congress had not implicitly delegated to it such authority either.⁴⁸⁶ It also reasoned that, “even if GHGs were ‘air pollutants’ subject to CAA regulation, EPA [was] prohibited from regulating motor vehicle GHG emissions for other reasons”. In other words, it argued that the authority to regulate improved fuel economy, which is ‘the only practical way to reduce tailpipe emissions of CO₂’, resides with the U.S. Department of Transportation.⁴⁸⁷

As a result of this Notice of Denial, the Connecticut, Massachusetts and Maine attorneys general withdrew the June 4, 2003 lawsuit they had previously filed against EPA. In it, they had demanded that the EPA regulate carbon dioxide emissions consistent with its duty to implement the CAA. According to at least one legal expert, that suit constituted a back-door attempt “to force federal regulation of carbon dioxide...by piggybacking such controls onto overdue revisions of pollution-control requirements for industrial facilities.”⁴⁸⁸ Subsequently, during early September 2003, the attorneys general filed a petition for review challenging that EPA Notice of Denial in the U.S. Court of Appeals for the District of Columbia Circuit.

On October 23, 2003, eight additional U.S. states⁴⁸⁹, the District of Columbia, and the island government of American Samoa, brought an action in the D.C. Circuit in support of and to join the petition previously filed by the three original attorneys general. This action was accompanied by separate petitions filed by the State of California, the cities of Baltimore and New York, as well as, by petitions filed by a virtual who’s who of the American environmental movement.⁴⁹⁰ According to one legal expert, if these suits were successful, “this would have dramatic [legal and economic] implications, as the EPA would be empowered – and in some cases required – to adopt far-reaching restrictions on activities that result in greenhouse gas emissions.”⁴⁹¹

It would also impose significant economic costs on states such as Michigan, Texas, Idaho, North Dakota, Utah, South Dakota, Alaska, Kansas, Nebraska, Ohio and Indiana, which rely on coal for energy production or primarily use natural gas or other fuels. During September 2004, ten of these states intervened on behalf of the EPA (with Indiana filing an amicus brief to both oppose the lawsuit brought by the climate change states as a matter of law and to prevent potential damage to their economies:⁴⁹²

If the Midwest states lose, Michigan utilities will have to switch from coal, which meets 66 percent of this state’s energy needs, to natural gas, an increasingly scarce and expensive fuel. This will make it more difficult for Michigan to offer competitive energy prices to businesses. Union and other studies show that this would cause Michigan to lose nearly 100,000 jobs right off the bat. Also [Michigan Attorney General Mike] Cox fears, forcing the EPA to classify carbon dioxide as a pollutant would ultimately result in even higher fuel economy standards for the automobile industry, raising the price of vehicles and costing more jobs.⁴⁹³

Oral arguments for this highly politicized case took place on April 8, 2005, and the court rendered its decision, in favor of the EPA, on July 15, 2005.⁴⁹⁴ Although the resulting split-decision went as far as to employ a combined and comprehensive standing *and* merits analysis to conclude that the EPA had acted completely within its administrative discretion to reject the petition, public statements (‘media spin’) made by such activist groups as the Natural Resources Defense Council strongly suggest that it will likely be “appealed by the states or environmentalists either to the entire circuit or even up to the Supreme Court”.⁴⁹⁵

Procedurally speaking, the majority opinion written by Judge Randolph positively resolved the questions of subject matter and personal jurisdiction – i.e., the court’s ability to ‘hear’ the case brought before it and the petitioners’ ‘standing’ to bring the case in the first place.⁴⁹⁶ The majority then proceeded to address the substance of the case, after having “assume[d] *arguendo* that EPA ha[d] the statutory authority to regulate greenhouse gases from new motor vehicles” (italics in original).⁴⁹⁷ The majority then reviewed whether and ultimately held that “the EPA Administrator properly exercised his discretion [under the CAA] in denying the petition for rulemaking”.⁴⁹⁸

Substantively speaking, the majority based its finding on the following facts:

“In addition to the scientific uncertainty about the causal effects of greenhouse gases on the future climate of the earth, the Administrator [also] relied upon many ‘policy’ considerations that, in his judgment, warranted regulatory forbearance at this time.”⁴⁹⁹

And, the majority based its holding on the following law:

“A ‘determination of endangerment to public health’...is necessarily a question of policy that is to be based on an assessment of risks and that should not be bound by either the procedural or the substantive rigor proper for questions of fact...And as we have held, a reviewing court will uphold agency conclusions based on policy judgments when an agency must resolve issues ‘on the frontiers of scientific knowledge.’”⁵⁰⁰

Judge Sentelle’s opinion, unlike that of the majority, concluded that the petitioners had failed in the first instance to meet all of the required conditions needed to establish ‘standing’ to bring their legal challenge. Yet he concurred with the majority’s ruling that, assuming petitioners had such standing, they nevertheless failed to prove that the EPA had not properly exercised its administrative discretion.⁵⁰¹

Notwithstanding the Court’s ruling, environmentalists have embraced Judge Tatel’s loquacious 38-page dissenting opinion. That opinion found that the “EPA...failed to offer a lawful explanation for its decision” as required by the Clean Air Act, and call[ed] for remanding “the matter back to EPA either to make an ‘endangerment’ finding or to come up with a reasoned basis for refusing to do so” consistent with the standards set forth within *that* statute.⁵⁰² Not surprisingly, Judge Tatel’s opinion stretched to emphasize the “*precautionary*” (emphasis added) nature of the statutory standard, which he interpreted to require regulation *before* scientific certainty is established, to require the EPA to prove that auto emissions do *not* contribute to global warming, and thus endangerment of public health (i.e., to satisfy a negative burden of proof), and to deny the EPA the administrative discretion to decide otherwise.⁵⁰³ Judge Tatel then concluded that since the EPA failed to satisfy (and the Court’s majority failed to apply) this standard, petitioner’s case should have gone forward (i.e., Judge Tatel set forth the basis of petitioner’s new appeal - reversible error).⁵⁰⁴

As if the stakes were not yet high enough, on July 21, 2004, eight state attorneys general and the City of New York⁵⁰⁵ filed a lawsuit against five of the largest U.S. public utility companies⁵⁰⁶ in an attempt to curb their greenhouse gas (GHG) emissions. These suits allege that the large utilities’ carbon dioxide emitting activities contribute to a ‘public nuisance’ as defined under federal common law. The precedent-setting remedy they seek is not monetary in nature – rather, they have petitioned for the utilities to abate the nuisance they have created by reducing their greenhouse gas emissions.

To be liable for a public nuisance, defendants must carry on, or participate to a substantial extent in carrying on, activities that create ‘an unreasonable interference with a right common to the general public’...[P]ublic nuisance law therefore creates duties to the broader ‘public’ by prohibiting unreasonable interferences with public rights...*Liability for a public nuisance may arise even though a party complies in good faith with laws and regulations*(emphasis added).⁵⁰⁷

In effect, the attorneys general have argued that the carbon dioxide emissions generated by these utilities seriously threatens (causes unreasonable interference with) public health, the economy and the environment. In particular, their brief alleges potential injury to the following: 1) public health; 2) coastal resources; 3) freshwater supplies; 4) the Great Lakes; 5) agriculture; 6) ecosystems such as forests, fisheries and wildlife; 7) personal and real property from more wildfires; 8) state economic interests; 9) the climate, due to increased rates of abrupt and catastrophic change from global warming; and 10) state sovereign and quasi-sovereign interests in the integrity of an ecological system that supports the natural heritage and upon which all of their natural resources and much of their economies depend⁵⁰⁸

As specious as these suits may seem, if either the plaintiffs win or the defendants settle, there is a real danger that more litigation will follow. Considering the effort now being made to change U.S. federal law, the worst thing U.S. industry could do is to become complacent.

One of the problems that the state attorneys general face in their suit is that it is generally accepted that federal environmental statutes preempt federal common law actions alleging interstate nuisances. Although such suits were once viable – so for instance, a downwind community could sue an upwind factory located in another state in federal court – in the 1970’s, the [U.S.] Supreme Court held that such claims were largely preempted. So, on the plus side, if the state attorneys general were somehow successful on the merits, this could have the effect of revitalizing the use of federal common law to address interstate pollution problems. On the other side, however, a successful suit would further the trend of ‘regulation by litigation’ – whereby state attorneys general, trial lawyers and judges usurp the policy-making function traditionally left to democratically elected legislatures.⁵⁰⁹

In this regard, businesses should closely review the 7th Circuit Court of Appeal’s decision in *People of State of Ill. v. City of Milwaukee*,⁵¹⁰ which addressed “resort by a state...to state law nuisance remedies to deal with pollution of its portion of an interstate body of water [Lake Michigan], resulting from the discharge of pollutants in another state...[The court in that case]...held that in [the] area of interstate water pollution, [the] Federal Water Pollution Control Act precludes application of one state’s common or statutory law to determine liability and afford a remedy for discharges within another state.”⁵¹¹

B. Efforts to Enact Federal Legislation on Climate Change

During the last week of January 2005, Senator Olympia Snowe (R-Me) “predicted a fast-approaching ‘point of no return’ for climate change – possibly in as few as 10 years – after which the crisis and its symptoms will be irreversible.”⁵¹² According to her press secretary, “You can expect to see her introduce several bills this year related to climate change that reflect the task force recommendations...[She wants to] get them out there and get them talked about, which will grow the broad support for action?...[even though]...[s]he doesn’t necessarily expect these initiatives to pass.”

On February 10, 2005, Senators Joseph Lieberman and John McCain reintroduced their Climate Stewardship Act of 2005. This bill was nearly identical to the proposal that they had introduced at the beginning of the 108th Congress, known as the Climate Stewardship Act of 2003 ('CSA' – S.139),⁵¹³ within the Senate Committee on Commerce, Science and Transportation. Concerned that this bill would suffer the same fate as did the last one, environmental groups such as the Environmental Defense Fund, together with the environmental press, employed flowery rhetoric to cast it as a 'moderate bipartisan bill', and as "a credible *first step* to addressing the dangers of global warming..." (emphasis added).⁵¹⁴ The use of these words more than suggested, however, that this bill would have done almost nothing to address the perceived hazard (not risk) of global warming in the foreseeable future, which is certainly less than what even the prior bill had envisioned. That bill, which had been previously advertised as a bipartisan effort to address climate change during 2003, was subsequently referred to the Senate Committee on Environment and Public Works and brought to a full Senate vote on October 30, 2003. It then failed by a margin of twelve votes (43 to 55).

Fortunately, on June 22, 2005, this reworked bill suffered the same fate as its predecessor – it was soundly rejected (pursuant to a vote of 60 to 38) by the U.S. Senate, despite British Prime Minister Tony Blair's personal appeal to individual senators to more proactively address global warming.⁵¹⁵ However, this bill's defeat was followed by the adoption of a narrowly approved (54-43) *non-binding* Senate resolution expressing the "Sense of the Senate on Climate Change", which had, only hours earlier, failed as tabled Amendment No. 866 to the comprehensive energy bill (The Energy Policy Act of 2005 - H.R. 6).⁵¹⁶ H.R. 6 was passed by the Senate 85-12 one week later (on June 29, 2005).⁵¹⁷

The resolution, a highly charged and self-contradicting statement in its own right, was introduced by Senator Jeff Bingaman (D-NY) and signed by Senators from both political parties, including "Republican Pete Domenici of New Mexico, chairman of the Senate Energy Committee".⁵¹⁸ It "finds that there is a growing scientific consensus that human activity is a substantial cause of greenhouse gas accumulation in the atmosphere", and calls for

"Congress [to] enact a comprehensive and effective national program of mandatory, market-based limits and incentives on emissions of greenhouse gases that slow, stop, and reverse the growth of such emissions *at a rate and in a manner that (1) will not significantly harm the United States economy*; and (2) will encourage *comparable action* by other nations that are major trading partners and key contributors to global emissions" (emphasis added).⁵¹⁹

However, anyone familiar with the underlying bases for the Senate's prior 1997 'Sense of the Senate on Climate Change' resolution that rejected the Kyoto Protocol⁵²⁰ and the complexity and long-term nature of the systemic changes needed to reform this country's energy mix, knows full well that this goal is not achievable in the short-term without significant cost and sacrifice. Indeed, 'comparable actions' taken by other nations, contrary to the best government and scientific prognostications, are having a *negative* impact on national economies and producing *negligible* environmental benefits. What this resolution actually reflects, then, is that the *political* spirit of the CSA remains alive and well in the minds of many within Washington, facts be damned.⁵²¹

The goal of the CSA was to impose *mandatory and economy-wide emissions reduction requirements* to ensure that U.S. national GHG emissions are reduced to their 2000 levels by 2010 and to 1990 levels by 2016. By contrast, the Kyoto Protocol requires that the U.S. national GHG emissions be reduced to 7 percent below its 1990 emissions by the end of the period spanning 2008-2012. The CSA would have accomplished this by establishing a GHG emissions-trading program similar to the one currently used to control releases of pollutants that cause acid rain. Companies would receive emission allowances capping their releases of GHGs. Those that reduce

their emissions below that level could sell their extra allowances to firms that exceed their emissions ceilings.

The CSA instructed the EPA to adopt and implement regulations to limit the GHG emissions from several economic sectors – electric utilities, industrial plants, transportation, and commercial facilities, as defined by the EPA’s *Inventory of U.S. Greenhouse Gas Emissions and Sinks* database (similar to the EU emissions trading regulation). The EPA continues to submit this information annually to the United Nations as part of the U.S. commitment under the United Nations Framework Convention on Climate Change (UNFCCC). According to the EPA, these sectors accounted for approximately 85 percent (%) of the overall U.S. emissions in the year 2000. The bill’s emission limits, however, would not have applied to the agricultural and the residential sectors at this time. And, certain areas within the affected sectors would have been exempt if the EPA determined that it was not feasible to measure emissions from that area.

The trading of emissions allowances and reductions would have been made possible by enactment of a National Greenhouse Gas Database containing an inventory of emissions and registry of reductions. “This approach is similar to the European Union’s Emissions Trading System (EU ETS) that launched in January and to the RGGI/RGGR program being developed in the Northeast United States.”⁵²² The outlines of such an emissions registry system had previously been approved and passed by the Senate as amended S.517, following an 88-11 vote during 2002. They were contained within the Climate Change Strategy and Technology Innovation Act of 2002, which had become part of the larger Senate Energy Policy Act of 2002. The Senate bill was later incorporated within the House bill, H.R. 4, “Securing America’s Future Energy (SAFE) Act of 2001. H.R. 4 was never acted upon in conference where it was ultimately left unresolved by the 107th Congress.⁵²³

On February 15, 2005, Senator Hagel (R-NE), along with three Republican co-sponsors, Lamar Alexander (R-TN), Larry Craig (R-ID) and Elizabeth Dole (R-NC), introduced the Climate Change Comprehensive Legislative Reform Act of 2005.⁵²⁴ It was comprised of three separate bills, S. 386 (/883)⁵²⁵, S. 387⁵²⁶, and S.388⁵²⁷, which addressed respectively international policy, tax policy and domestic policy. Many of these bills’ provisions were retained in a subsequent amendment proposed by Senator Hagel and others and later passed and incorporated within H.R. 6 on June 21, 2005.⁵²⁸

Arguably, if H.R. 6’s climate change provisions survive conference and are passed by both the Senate and the House without much modification, it would extinguish any constitutional claim that states, individually or regionally, could conceivably make to justify their regulation of greenhouse gas emissions generated by autos and power plants operating within their jurisdictions. Such a result would obtain precisely because Congress will have clearly expressed its intent for voluntary GHG emissions reductions, supplemented by federal law (investment and research and development incentives and tax credits), to “occupy the field exclusively.”⁵²⁹

The Climate Change Technology Deployment in Developing Countries Act (S.386) in particular, promotes the exportation by U.S. companies of U.S. greenhouse gas intensity reducing technologies and practices to, and their adoption by, developing countries. The Secretary of State is to coordinate developing country funding assistance, and fellowship and exchange programs are to facilitate technical assistance and knowledge transfer. To promote the diffusion of such technologies (e.g., ‘clean coal technology’) in developing countries without risk of trade reprisals, the U.S. Trade Representative (‘USTR’) would negotiate the removal of trade-related barriers within those countries. Such barriers may be erected simply to protect a developing country’s less GHG-efficient indigenous energy technologies from all foreign competition. Alternatively, in the event a developing country is an EU trading partner, such barriers might be erected without scientific and economic foundation (i.e., pursuant to the precautionary principle) against such U.S. technology exports in order to favor what is perceived to be more environment-friendly EU climate change mitigation technology exports.⁵³⁰

In both cases, USTR involvement would likely pave the way for U.S. companies to gain access to developing country projects that remain open also to non-Kyoto Parties under the Protocol's 'Clean Development Mechanism'.⁵³¹ However, this implies that U.S. companies would expect to use any project-related GHG 'offsets' under the EU ETS or any future U.S. federal or regional (e.g., RGGI) climate change regime. Presumably, this is, in part, why the Senator and his colleagues have crafted a related domestic climate change bill (S.388).

However, there are problems with such an indirect approach, even if such a plan is to be merely 'voluntary' in nature. It is arguable, for instance, that any GHG registry, even if voluntary, might trigger a domino effect that could generate the type of arbitrary and artificial discrimination between and distinctions among U.S. companies and their products and services which the U.S. has objected to, as a matter of international trade law, at the WTO. While the proposed GHG emissions registry may be intended to promote only *voluntary* company reporting of GHG emissions and credits for purposes of future use *in the event* a mandatory emissions trading cap were ever imposed, it is likely to have the same practical effect. Indeed, the mere threat that a mandatory cap could be imposed, despite Senator Hagel's express rejection of one,⁵³² could, sooner rather than later, prompt 'first mover' U.S. companies to register and secure GHG credits now, rather than wait until they become more expensive later. Indeed, this is precisely the logic underlying the reincarnated McCain-Lieberman bill.

Believing, as many European companies do, that they could subsequently profit from the later sale of those credits, such American companies would, more likely than not, engage their lobbyists to secure their perceived market advantage via adoption of a *mandatory* cap. This is precisely what is occurring within California and New York. They would also employ advertising media to 'paint' themselves as more environment-friendly than their reluctant competitors without any standards having been put in place to require scientific substantiation of such claims. This could effectively lead to the creation of competing industry advertisement campaigns that are misleading and misrepresentative from a consumer information perspective. In other words, consumers would find it extremely difficult to discern the truth about company financial and non-financial actions supposedly taken to 'positively' address global warming. It would also penalize all other companies that, once the mandatory cap is in place, would be forced to pay more to obtain GHG credits, or to make deeper GHG emissions cuts than otherwise required. However, the question still remains; what, if any, earthly environmental benefits can such a national regulatory regime hope to deliver if the Kyoto Protocol is already unable to deliver them on a much grander scale?

Rather, the energy conservation, income tax incentives and domestic public-private partnership research and technology development provisions of S.387 (now incorporated in the H.R. 6) and the joint international research and technology development provisions of the previously unveiled (2002) Bush Administration Climate Change Plan would be much preferred. These proposals would more likely provide U.S. industry with the ability to achieve the substantial technological breakthroughs needed and the environmental benefits desired at a lower economic and social cost overall to American society; i.e., without jeopardizing the American free market enterprise and legal systems and the American comparative advantage in international trade in the process. They would also more likely lead to the creation of the types of high-tech and higher paid new jobs and expanded economic opportunities that would permit future generations of Americans to engage rather than retreat from the new millennium. This positive vision of sustainable development runs counter to the negative vision now being promoted by the European Union, the UN and environmental advocates, and blindly embraced by vote-seeking politicians. That negative paradigm emphasizes how the new millennium presents many dangerous challenges (global hazards rather than risks) that must be met by slower economic and technological growth and development and overly strict environmental policies reflective of the lower paying 'stewardship', 'caretaker', and 'housekeeping' jobs that bureaucrats have dreamt up and forecasted for the future.

C. Efforts to Change Environmental Accounting and SEC Disclosure Rules (Non-SOX)

1. SEC Disclosure Rules – S-K Regulations

In a paper released during 2001, one EPA official accused U.S. public companies of not adequately complying with their obligations under U.S. federal securities laws to disclose environmental performance information demanded by equity investors such as social investment funds and environmental groups.⁵³³ The types of environmental performance information for which disclosure was sought included information about: 1) Environmental legal proceedings and violations of environmental law; 2) Environmental liabilities; and 3) The impact of impending environmental issues on capital expenditures and future earnings.⁵³⁴ The paper contended that such noncompliance translated into an “information asymmetry market failure,” and that as a result, “[i]nvestors and fund managers that want to take advantage of the link between environmental and financial performance to use corporate environmental performance as a criteria for selecting or screening stocks are at a disadvantage...”⁵³⁵

The financial disclosure requirements to which the EPA official referred are contained within three different sections of SEC Regulation S-K. Generally speaking, S-K Item 101 requires companies to disclose the ‘material’ effects of compliance’ with federal, state and local environmental provisions (laws that have been enacted or adopted) on their capital expenditures, earnings and competitive position. S-K Item 103 generally requires companies to describe certain administrative or judicial legal proceedings arising from federal, state, or local environmental provisions, and any ‘material’ pending legal proceedings, other than routine litigation, incidental to the business to which the registrant or any of its subsidiaries is a party. *For this purpose, the rules provide that* environmental litigation is not ordinary or routine. Item 103 also requires disclosure of any *enforcement proceedings* that reasonably may be expected to result in sanctions of \$100,000 or more, regardless of whether the company considers it material.

The third applicable S-K regulation section is S-K 303. S-K 303 generally addresses the costs of *future* environmental risks.⁵³⁶ It requires companies to discuss their liquidity, capital resources and results of operations. It also requires the company to identify *any known trends*, demands, commitments, events, or *uncertainties* that may result (or be ‘reasonably likely to’ result⁵³⁷) in a ‘material’⁵³⁸ change (favorable or unfavorable) in the company’s net sales, revenues or income from continuing operations that may not otherwise be reflected in the financials. This part of the filing is known as ‘*Management’s Discussion and Analysis of Financial Condition and Results of Operation*’ (‘*MD&A*’).⁵³⁹ It is within this largely non-financial section that the SEC would also expect to see management’s evaluation of the potential material effects of known trends (evolving foreign regulatory trends) and uncertainties (environmental contingencies) on company financial operations or capital resources, using both financial and non-financial information available to it.⁵⁴⁰ Yet, “[c]ompanies must determine, based on their own particular facts and circumstances, whether disclosure of a particular matter is required in MD&A.”⁵⁴¹ According to the SEC,

[A] good introduction or overview would...provide insight into material opportunities, challenges and risks, such as those presented by known material trends and uncertainties, on which the company executives are most focused for both the short and long term, as well as the actions they are taking to address these opportunities, challenges and risks.⁵⁴²

For example, a company would need to assess the *likely future consequence* of impending environmental regulations or liabilities. And, disclosure would be required, *unless* management is able to conclude otherwise. It would have to conclude either that (i) the trend, uncertainty or event is not reasonably likely to occur or come to fruition or (ii) such trend, uncertainty or event is not

reasonably likely to have a ‘material’ effect on the company’s liquidity, capital resources or results of operations.⁵⁴³

In addition to the above, companies are ‘encouraged’ to include in their filings *forward-looking information*,⁵⁴⁴ which entails a) anticipating a future trend or event; or b) anticipating a less predictable impact of a *known* event, trend or uncertainty. Pursuant to a 1989 SEC interpretive release/ guidance document, companies are obligated to disclose *future risks* where a trend, demand, commitment, event or uncertainty is BOTH: a) presently known to management; and b) ‘reasonably likely’ to have ‘material’ effects on the registrant’s financial condition or results of operation.⁵⁴⁵

Beyond the S-K Regulation disclosure requirements, the SEC relies on the professional standards and guidance documents issued by the Financial Accounting Standards Board (FASB) and the Public Company Accounting Oversight Board (PCAOB). Those standards help to ensure that companies are properly accounting for and reporting on their financial operations, including any environmental losses resulting from liabilities from permanent reductions in the value of company assets. SEC presumes that financial statements not prepared in accordance with generally accepted accounting principles (GAAP) promulgated by the FASB are misleading and inaccurate.

Pursuant to GAAP, companies must report (disclose) *liabilities*, including environmental *liabilities*, in their financial statements *if* the liabilities’ occurrence is ‘probable’ *and* their amounts are ‘reasonably estimable.’⁵⁴⁶ A liability is ‘reasonably estimable’ if company management can develop a point estimate or determine that the amount falls within a particular dollar range. According to GAAP, companies should always accrue and disclose their best estimate for liability in their financial statements, given the range of possible costs. If no one estimate is better than the others, GAAP specifies that companies should accrue the lowest estimate in the range, although they must still disclose the potential for additional liability in the footnotes to the statements. If the ‘best estimate’ in a range is accrued, then the potential for additional liability need not be disclosed. If the liability does not meet one or both of the criteria for accrual in the financial statements, it must nonetheless be disclosed in the footnotes if it is ‘reasonably possible.’⁵⁴⁷ ‘Reasonably possible’ represents a range of possible outcomes that have ‘a greater than remote chance’ of occurring.

2. *Changing Financial Accounting Rules to Broaden Environmental Disclosure - SEC Petition 4-463*

On September 20, 2002, the Rose Foundation for Communities and the Environment revised an earlier petition, dated August 20, 2002. That petition had requested the SEC “[T]o promulgate two new rules “to clarify the intent of the Commission’s material disclosure requirements with respect to *financially significant environmental liabilities* and help ensure compliance with existing material financial disclosure requirements” (emphasis added).⁵⁴⁸ A close look at this petition, however, reveals how truly *political* in nature it is.⁵⁴⁹

The proposed mandatory rules, which are a departure from current GAAP requirements, would be based on two voluntary ASTM⁵⁵⁰ industry standards. “According to the petitioners, adoption of the ASTM standards would remedy two current sources of underreporting of environmental liabilities: 1) [C]laims that environmental costs are not readily estimable due to associated uncertainties; and 2) [E]valuation of the ‘materiality’ of environmental costs and liabilities on an individual [piecemeal], as opposed to an aggregate basis.”⁵⁵¹ In other words, it is an attempt to make companies account financially for uncertain hazards that are perceived as real by risk-averse social and environmental activists in foreign jurisdictions, especially the EU, even if they have not yet been enacted as legislation or regulations.

One standard (E2137-01 – ‘Standard Guide for Estimating Monetary Costs and Liabilities for Environmental Matters’) would require companies to “go beyond developing only a range of possible costs and disclosing the known minimum...[I]nstead of simply reporting the lowest possible estimate, cost estimates should take into account the range of possible costs and the probability that these possible costs could occur.”⁵⁵² Pursuant to this standard, companies would need to compute an ‘expected value’, which takes a ‘weighted average’ of each of the possible liability scenarios, considering each individual probability of occurrence.⁵⁵³ Where there “is not enough information available to derive a robust ‘expected value’, the standard calls for a hierarchy of alternative methodologies, from most likely value to a range of values.”⁵⁵⁴ According to the Rose Foundation, *the ‘expected value’ method “requires, in almost all circumstances, an estimate greater than that arrived at under the ‘known minimum value’ method” currently utilized*, and thereby “provides investors with the information they need to evaluate the financial risk associated with a company’s environmental liabilities” (emphasis added).⁵⁵⁵ Indeed, the Rose Foundation believes that this standard “[C]an be used to project liability estimates with regard to a myriad number of instances...[including] costs of *future* site restoration or closure...property damage and natural resource damage, as well as *costs associated with global climate change (which can be some of the largest future liabilities facing corporations)*...” (emphasis added).⁵⁵⁶

The other standard (E 2173-01 – ‘Standard Guide for Disclosure of Environmental Liabilities’) would require disclosure of environmental liabilities “when an entity believes its environmental liability for an individual circumstance or its environmental liability in the aggregate is ‘material’. These amounts include, but are not limited to, damages attributed to the entity’s products or processes, cleanup of hazardous waste or substances, reclamation costs, fines and litigation costs.”⁵⁵⁷ This standard, “which is intended to apply to MD&A, would require companies to consider the financial impact of *all* environmental liabilities... *[This] could increase dramatically the scope and detail of a public company’s environmental disclosures.*” (emphasis added).⁵⁵⁸ It might also result in an overwhelming volume of information being disclosed, *much of which would be trivial and perhaps misleading to investors.*⁵⁵⁹

3. Congressional, State and UN Activities Concerning SEC Disclosure Rules

On October 10, 2002, Senators Jeffords, Lieberman and Corzine requested a U.S. Congress General Accountability Office (GAO) report on Securities and Exchange Commission (SEC) corporate environmental disclosure regulations, their implementation by the SEC, and companies’ compliance with such rules. In particular, the members requested that the GAO address seven topics, including an analysis of the ‘gap’ that exists between what companies report to shareholders and what markets, analysts and insurers believe is the potential real liability of environmental costs and risks. They also asked the GAO to identify changes in regulations or laws that would encourage greater environmental disclosure to shareholders.⁵⁶⁰

During April 2003, the United Nations Commission for Environmental Cooperation of North America and the United Nations Environment Program Finance Initiative (UNEPFI) issued a report evaluating why the mainstream U.S. financial community had not been demanding environmental information from public companies. It focused on the nondisclosure of environmental issues by companies in the mining, manufacturing, chemical, building, petroleum, pulp and paper, and insurance sectors.⁵⁶¹ This report was likely issued to prompt the GAO to vigorously undertake its investigation.

The UNEPFI report made the following findings: 1) “[Since] environmental issues ha[d] not been prominent among all the securities regulatory issues that the responsible agencies [were] faced with...the SEC ha[d] not historically enforced its disclosure requirements with respect to potential environmental liabilities”⁵⁶²; 2) “[A] lack of a clear definition of what ought to be reported [has allowed]...companies to justify, under existing enforcement scenarios, not reporting

on the potential impacts of environmental issues like climate change”;⁵⁶³ 3) “If a given standard for disclosure is not actively enforced, mainstream banks and analysts will not consider this information to be important. As well, they are not likely to incorporate such information into their financial analysis if it is not clear that such information can affect a company’s bottom line;”⁵⁶⁴ 4) There must be greater involvement of the financial and accounting sectors in the creation of improved reporting standards, to ensure that environmental considerations become part of the investment analyses of financial houses and the individual and institutional investors they serve; and 5) The US Government should be called upon to enforce existing regulations and the application of GAAP accounting standards.⁵⁶⁵

On July 10, 2003, Senator Jon Corzine (D-NJ) convened a congressional symposium to consider the current state of public company disclosure of environmental and social risks in Securities and Exchange Commission (SEC) filings. The group was moderated by Ms. Michelle Chan-Fishel, chair of the Corporate Sunshine Working Group. Ms. Chan-Fishel is also coordinator of the Friends of the Earth green investments program.⁵⁶⁶

On November 21, 2003, the Treasurers from the States of California, Connecticut, Maine, New Mexico, Oregon and Vermont, and the Comptrollers of the State and City of New York, and two leading Labor Pension Funds submitted a ‘10 point call for action’ to the SEC. It called upon the SEC “to enforce corporate disclosure requirements under regulation S-K on material risks such as climate change and to strengthen current disclosure requirements — as requested by investors and others in recent petition to the SEC (File # 4-463).”⁵⁶⁷ As with other such efforts, the goal was to cause companies to disclose climate change risk:

Investors need information on the financial risks posed by climate change and faced by companies in which they invest. This information is not currently readily available. Investors are seeking analysis and disclosure of the potential of this financial risk... Climate risk has become embedded, to a greater or lesser extent, in every business and investment portfolio in the United States. In order for investors to exercise appropriate judgment and for fiduciaries to act responsibly, disclosure of the potential economic risks posed by climate change is essential.⁵⁶⁸

On July 14, 2004, the GAO issued its report, in response to the prior request submitted by Senators Jeffords, Corzine and Lieberman.⁵⁶⁹ In general, it found that current disclosure of environmental information was not inadequate. In addition, it determined that, without more compelling evidence that the disclosure of environmental information is inadequate, the need for changes to existing disclosure requirements and guidance or increased monitoring and enforcement by SEC is unclear.⁵⁷⁰ Furthermore, the GAO recommend that the SEC should ensure that it has the information it needs to allocate its oversight resources and determine where additional guidance might be warranted, before it seeks to act.⁵⁷¹ GAO made specific recommendations to the SEC in this regard⁵⁷², and suggested that the SEC be given the opportunity to implement them.⁵⁷³

Undeterred by the GAO report’s findings, the Rose Foundation for Communities and the Environment released another report during July 2004.⁵⁷⁴ The group argued that emerging scientific concerns about potential health and environmental hazards that are reflected in peer reviewed scientific journals are subject to disclosure under SEC rules, whether or not they may ‘materially’ affect a company’s operations or finances:

In our technology-rich economy, a surprising number of products enter the market without full understanding of the risks posed to health or environment. Only after-the-fact do scientists come to understand the full implications. Examples of the *concerns are numerous – in everything from biotechnology, to emerging nanotechnologies, to*

greenhouse gas emissions, to toxic substances in cosmetics, toys and medical devices (emphasis added).⁵⁷⁵

Scientific developments indicating risks of a company's products or activities are disclosable developments under SEC rules when they are reasonably likely to pose a material impact on the company either by leading to liability suits, by creating market risks as against competitors whose products do not pose the emerging scientific concerns, or by creating costly pressures on a company to reconfigure production to avoid the newly recognized risks.⁵⁷⁶

[T]he SEC still needs to issue general guidance on disclosures related to emerging science⁵⁷⁷ ... The SEC should issue a staff guidance stating that when *emerging peer reviewed literature or other credible scientific reports* indicate the potential for significant new health risks related to a company's products or activities, the company should make this information available to shareholders. ... Also *disclosure should be required without regard to whether the company anticipates material impacts in the near term*. Such guidance should also state that when emerging science or risk issues are giving impetus to emerging market or consumer trends or public policies encouraging consumption of alternatives to a company's products, the company should specifically report on such trends, and may, in its discretion, report as to whether it is engaged in research and development to market its own alternatives. In the event that the company expresses its own scientific opinions in opposition to the findings of the emerging scientific studies, the company should be required to state the basis for its scientific opinions (emphasis added).⁵⁷⁸

Consequently, if this group had its way, companies would be required to peruse monthly scientific journals for evidence of grave new hazards (rather than risks) that threaten sustainable development, as defined and identified by environmentally enlightened, socially responsible, risk-averse civil society advocates of the precautionary principle. And absent any requirement that such information must first be vetted, there will be no practical way to ensure that the quality of the published information meets the standards of the scientific community prior to its being publicly disclosed in companies' financial and non-financial filings.⁵⁷⁹ This way, global stakeholders can further increase their involvement in the direct management of public companies, even those they have no interest in investing in, and thereby organize and define the parameters of supply chain management for all public company SME suppliers at each level of the global supply chains.

D. Efforts to Reform Federal Food, Drug and Chemicals Regulations

1. Agricultural Biotech/USDA/FDA/EPA

Given the fanfare in Europe over the supposed failure of the U.S. regulatory system to ensure that U.S. exports do not pose hidden health or environmental hazards, certain constituencies are agitating for federal regulatory regimes to prevent potential public hazards from emerging. The use of the term 'hazards' rather than 'risks' is significant in that it mirrors the use of that term by precautionary principle advocates in Europe.

In years past (until at least 1984), the U.S. arguably had taken a 'precautionary approach' to regulating uncertain hazards that was narrower in scope than Europe's current precautionary principle. It was premised on the so-called 'Delaney Clause' of the U.S. Food, Drug & Cosmetic

Act:

The clause banned the use of any food additive if tests revealed that it caused cancer in either laboratory animals or humans. As a result, air quality standards, pesticide restrictions, drug safety tests, and groundwater contamination rules all focused on the ‘potential’ rather than the ‘probable’ findings of hazards...[Pursuant to that approach,]...*regulatory decisions emphasized precaution and minimal risk to consumers and the environment. Consistent use of scientific risk assessment was not a hallmark of U.S. food regulation, and regulation of biotechnology followed a similar path in its early development* (emphasis added).⁵⁸⁰

However, during the mid-1980’s, the U.S. government loosened the regulatory reins. Interested in facilitating the burgeoning science of biotechnology, the FDA decided to take a different regulatory approach that was more conducive to investment and not unduly burdensome in a regulatory sense. In another words, the U.S. adopted the current biotechnology framework, which addresses potential ‘risks’ as opposed to hazards.⁵⁸¹ This framework recognizes biotech products as ‘substantially’ equivalent’ to conventionally produced food products that are ‘generally recognized as safe’. It also dispenses with the need for the special testing and labeling of such biotech products.⁵⁸² Since “there [was] no scientific basis for specific legislation for the implementation of rDNA technology and applications”,⁵⁸³ “[t]he requirements for establishing substantial equivalence [have] not [been] so onerous that they [have] kept GM foods off the market.”⁵⁸⁴ The framework has creatively used a mosaic of existing federal laws⁵⁸⁵ and relied on an interagency process, pursuant to which jurisdiction over *specific* biotechnology *products* (as opposed to ‘classes of products’) is determined by their use, just like traditional products.⁵⁸⁶

However, as a result of the industry’s rapid expansion beyond basic biotech products⁵⁸⁷, the concerns of a growing U.S. organic food industry and the intense political pressures generated by such ENGOs as Greenpeace and Friends of the Earth and from the EU Commission, this framework is once again under review. According to *The Washington Post*, some groups want Congress to pass a new biotech law⁵⁸⁸ that would adequately review the health and environmental impacts of the newest generation of biotech products:

Opinion in Washington is sharply divided on whether the 18-year-old biotech regulatory system can be fixed with administrative tweaking or whether Congress needs to pass new laws, said the report by the Pew Initiative on Food and Biotechnology, a think tank. But either way, the report cites numerous examples to make the case that action by the federal government is needed to ensure credible oversight of an industry that is tinkering with the very foundations of life. ‘The regulatory system isn’t broken, but it is showing signs of wear and tear’, said Michael Rodemeyer, executive director of the Pew Initiative...⁵⁸⁹

The Post article went on to note how “Europeans have been more aware — and more skeptical” of biotech crops and how “European politicians [have] repeatedly cite[d] the perception that the U.S. regulatory system is [too] weak to [manage] the technology in their countries.”⁵⁹⁰ It then cited how the Bush Administration had failed to act on “one proposal for tighter regulation of biotech crops...that [had] near[ed] approval as the Clinton administration was leaving office...[That proposal had been]...endorsed...by virtually every group with a stake in the issue: the biotech industry, the food industry, environmentalists and consumer groups...”⁵⁹¹ And, it noted how the FDA was reluctant to expand its authority to create new rules, and how it was preoccupied with “carefully weighing the public health, scientific and legal ramifications of [the] technology.”⁵⁹²

While the regulatory patchwork underlying the biotech framework has served industry well

during the past two decades, this very feature, once considered its strength, may yet serve to undermine it. It may also lead to unneeded changes in the various individual regulatory elements that have comprised it.

2. *FDA/Medical Biotech*

There is concern, for example, that biotech regulatory reform may also be precipitated by the current controversy over certain pharmaceutical drugs which were approved by regulators as safe but later alleged to be harmful to some patients (e.g., Vioxx, Celebrex, Bextra). This has led to the introduction of bipartisan federal legislation (the Fair Access to Clinical Trials or FACT Act of 2005) by Senators Dodd and Grassley “that would require drug makers to register clinical trials about prescription medicines. Grassley said that, ‘by making the clinical trial information publicly available we make the system for ensuring drug safety more transparent and more accountable. That ultimately leads to an even safer system and greater consumer confidence.’”⁵⁹³

In addition, “Health and Human Services Secretary Michael Levitt announced the creation of a Drug Safety Oversight Board as part of the Food and Drug Administration’s new ‘culture of openness’...As part of the agency’s new ‘transparency’, the FDA will launch a Drug Watch Web page to convey new information about safety risks.”⁵⁹⁴

Creation of the board comes at a time when FDA is under intense pressure from Congress and the public to improve monitoring of drugs after approval...[According to] Acting FDA Commissioner Lester M. Crawford Jr...’Our goal is to prepare the agency for these new demands by improving the way we monitor and respond to *possible adverse health consequences that may arise* regarding drugs approved for sale to U.S. consumers’ (emphasis added).⁵⁹⁵

Mr. Crawford’s choice of words – ‘possible adverse health consequences’ [i.e., uncertainties] – did not escape the attention of the pharmaceutical industry trade association (PhRMA). They quickly commented that, “*It is important that regulatory decisions and communications be based on sound science and reflect carefully considered judgment regarding benefit and risk*” (emphasis added).⁵⁹⁶ This group’s response raises other questions. Will the current clamor for more safety-oriented reform at the FDA⁵⁹⁷ cause regulators to buckle under the pressure⁵⁹⁸ and reintroduce a precaution/ hazard-based evaluation approach? And, will this spread to the biotech sector?

The investment community has two different theories concerning the second of these questions. According to one view,

For old-guard drug companies, the past several months have been a sort of perfect storm of bad news. But will the malaise of the big boys spread to the high-growth biotech companies...? I don’t think so... True biotech companies and their larger brethren have to play by the same rules, but they are playing slightly different games. Big Pharma has come to increasingly rely on me-too products with marginal distinctions from competing drugs, propped up by massive direct-to-consumer advertising. To the extent biotech companies play this game, they’ll fare no better or worse than the majors. And while it may be that reform proposals will successfully limit how drugs are advertised or put new safety requirements on mass-market products, most biotech companies are not going down that road. New cancer therapies, the primary target of many biotech companies, don’t need to meet quite the same standards as pain pills and impotence treatments. Most biotech drugs are used by very sick patients, and many, while having side effects, are actually safer than the chemotherapeutics they hope to replace. *Moreover, the FDA has shown its still willing to take risks when it comes to cancer drugs...None of this means biotech investors should engage inn*

*Schadenfreude at the expense of Big Pharma. When Congress prepares to act, investors are right to be nervous. Dodd's legislation is just the first in what is expected to be a series of reform proposals... (emphasis added).*⁵⁹⁹

But, according to another view,

It is no secret big drugmakers are sick. Investors should worry that their germs could spread to smaller, hotter biotech stocks... What is astounding is that biotech stocks have been largely sheltered from the news of drug safety disasters, high drug costs, and scientific roadblocks to creating new drugs. While the American Stock Exchange's pharmaceutical index has sunk some 5% in the past six months, its biotech index has risen by 10%. Some have actually argued that big pharma's ailments will be good for small biotechs, because big drug companies will be more likely to overpay for experimental medicines. This is shortsighted... [According to]... Geoffrey Porges, a biotech analyst at Sanford Bernstein, 'Interestingly, we're seeing the distinctions between these two kinds of companies and their stocks sort of erode... Any change in regulatory oversight of drug safety is also going to affect biotech companies, particularly as they start to stray from their original mission of focusing on expensive drugs for high-end diseases in relatively small patient populations.' No drug company is an island, and the same forces will work on all medicines."⁶⁰⁰

3. FDA/Antimicrobial Animal Drugs

Since 1997, the EU has banned a class of five 'growth-promoting antibiotics' administered in animal feed on the basis of the precautionary principle due to concerns that microbial-resistant bacteria will possibly travel from the food products of slaughtered animals to the humans who consume them.⁶⁰¹ The EU Commission, which did not perform a full quantitative risk assessment or an economic cost-benefit analysis, nonetheless required therapeutic administration of antibiotics to individual heads of cattle to treat specific infections.⁶⁰² The EU bans have "had adverse consequences for animal health and welfare and economic consequences [from reduced animal production] for farmers. Recent studies have shown that the bans may even pose a greater risk to human health than the harm they were intended to prevent."⁶⁰³

In response to growing political pressure from European and American 'consumer' groups, the FDA announced, on October 23, 2003, a new review procedure intended to address the risk of antimicrobial resistance. Industry Guidance Document #152 set forth non-binding recommendations "for assessing the safety of antimicrobial new animal drugs with regard to their microbiological effects on bacteria of human health concern."⁶⁰⁴ According to then deputy FDA Commissioner Lester Crawford, "U.S. law forces [the agency] to look at products individually. We think it is far better to look at the real risk... instead of just disallowing a category of uses."⁶⁰⁵

Notwithstanding Mr. Crawford's remarks about the distinction between bans of individual products and *categories* of products, however, some believe that this document reflects hazard/precaution-'creep', given its focus on hazard characteristics, its minimization of *quantitative* risk assessment and its disregard for economic cost-benefit analysis. The document was intended to evaluate, on a *pre-market* basis,

[T]he potential impact on human health *of all uses of all classes* of antimicrobial new animal drugs intended for use in food-producing animals... *This document focuses on the concern that the use of antimicrobial new animal drugs in food-producing animals will result in the emergence and selection of antimicrobial resistant food-borne bacteria which impact human health adversely.* The FDA believes that

human exposure through the ingestion of antimicrobial resistant bacteria from animal-derived foods represents the most significant pathway for human exposure to bacteria that have emerged or been selected as a consequence of antimicrobial drug use in animals (emphasis added).⁶⁰⁶

The recommended risk analysis process, comprised of hazard⁶⁰⁷ characterization⁶⁰⁸ and qualitative risk assessment,⁶⁰⁹ appears to favor *qualitative* risk assessment over quantitative risk assessment despite its attestation to the contrary.⁶¹⁰ “FDA’s current thinking on a *qualitative* approach for risk assessment, *especially where there may be a lack of substantial data*, is described in this guidance. *FDA does not intend to exclude quantitative risk assessment in favor of a qualitative process*” (emphasis added).⁶¹¹ Yet, for all practical purposes, FDA may decide that risk assessment is not necessary.⁶¹²

The ‘lack of substantial data’ terminology alludes to the ‘in the absence of scientific certainty’ language that EU regulators typically rely on to justify application of the precautionary principle. If the FDA were confident that this document would not be so perceived, why then would the agency need to reassure industry that it would *not exclude quantitative risk assessment* from the risk analysis process? Answer:

Th[e] [hazard characterization] will enable the sponsor and the FDA to determine the information that should be included in the risk assessment. In addition, *based on the hazard characterization, it may be determined in certain cases that completion of a risk assessment is not recommended*” (emphasis added).⁶¹³

And, the following language suggests that the steps of hazard characterization and qualitative risk assessment may not be as distinct as they are represented to be – i.e., they consider the same factors and may actually overlap. This raises the specter of duplication, compounding or contradiction:

CVM envisions hazard characterization as distinct and separate from the qualitative risk assessment⁶¹⁴ and it is recommended that the hazard characterization be submitted to the FDA as a stand alone document⁶¹⁵... A number of relevant factors are suggested for consideration in completing the release assessment. *These factors include items that are also considered as part of the hazard characterization step...* “FDA recommends that sponsors address the hazard characterization *step of the risk assessment* (emphasis added).⁶¹⁶

In addition, the FDA assumes that if an animal is stricken with bacteria at the slaughterhouse, it will transfer such bacteria to humans through food consumption, notwithstanding any number of possible intervening events, such as proper hygiene and adequate preparation/cooking:

FDA recognizes that there are many factors that may affect the bacteria of interest between the time animals are presented for slaughter (or the animal-derived food is collected) and the time the final food product is consumed. For the purposes of this qualitative risk assessment, *FDA assumes that the probability that bacteria in or on the animal at slaughter may be used as an estimate of the probability of human exposure to that bacterial species in the food commodity derived from that animal.*⁶¹⁷

In essence, the flaws inherent within the hazard-based approach underlying FDA Guidance 152 can be explained as follows. The FDA-recommended qualitative risk assessment is said to be comprised of a release assessment, an exposure assessment and a consequence assessment. Each of these elements is rated through the use of a semi-quantitative descriptor and a reference table. The FDA then assigns an aggregate semi-quantitative descriptor for the overall risk estimation.

While the release assessment estimates the probability that resistant bacteria are present in a target animal as the result of drug use, it is arguable that its focus on the mere presence or absence of resistant bacteria, without regard to any threshold level, is misplaced. Rather, the emphasis should be placed on the presence of bacteria *above a given threshold level* which logically would vary from species to species. Arguably, the probability that bacteria are present but only at a very low level would be statistically insignificant and not pose more than a slight risk to humans. Similarly, the exposure assessment, which estimates the probability that humans might ingest a given bacteria from a particular food commodity, focuses wrongly on the ingestion of even a single bacterium, without regard to any threshold level. Rather, the issue, as noted above, should be whether bacteria have been ingested *above a given threshold level* that logically would vary from species to species. Once again, the existence of a high probability of ingesting low levels of bacteria would be statistically insignificant and not usually pose more than a slight a risk to humans.

Considering that this document does not identify a particular threshold level, it must be assumed that the threshold level is zero. In that event, it would seem clear that FDA Guidance 152, notwithstanding the contrary claims of FDA officials, actually reflects application of the precautionary principle.

4. *Toxic Chemicals/EPA*

On April 21, 1998, the U.S. Environmental Protection Agency expanded its chemical ‘right-to-know’ program which was based on the Toxics Release Inventory (1990 Inventory Update Rule under the Toxic Substances Control Act – ‘TSCA’). During prior years, communities and industry had used that program in an effort to reduce environmental pollution from ‘high volume’ toxic chemicals – those manufactured and or imported in quantities exceeding one million pounds per year.⁶¹⁸ When the EU had originally proposed the EU REACH regime in the form of a chemical white paper during 2001, it found the EPA’s voluntary High Production Volume (‘HPV’) Challenge Program inadequate and unequal to the task of publicly identifying the *potentially hazardous properties and uses* of more than 30,000 existing chemicals being commercially traded. Indeed, the initial aim of the U.S. HPV program was relatively modest - by 2004, only 2,800 high production volume chemicals were to have been tested.

Since that time, however, ideological environmental groups such as Greenpeace and World Wildlife Fund have launched significant public pressure campaigns, and the EU’s proposed REACH regime has itself undergone at least two revisions. As a result, the U.S. EPA HPV program seems to have taken on new life. For example, EPA’s Office of Pollution Prevention and Toxics (OPPT) is expected to begin formally evaluating 1,400 such chemicals by the end of 2005, having already reviewed those substances for *hazard* information.⁶¹⁹ In a recent report, the EPA highlights how “Public access to *hazard data* is integral to the HPV Challenge Program” (emphasis added).⁶²⁰ In fact, the report pleasantly notes how ideological environmental and animal welfare groups have already been granted a growing and influential role in this program:

Environmental Defense has submitted comments on 89% of all posted test plans. Two animal welfare groups – People for the Ethical Treatment of Animals (PETA) and Physicians committee for Responsible Medicine (PCRM) – submitted comments on 62% of all test plans, and private individuals and other groups submitted comments on fewer than 3% of all test plans.⁶²¹

In addition, the EPA’s National Pollution Prevention and Toxics Advisory Committee (NPPTAC) has asked its HPV Challenge Program Work Group “to develop and propose a *hazard-based screening process* to organize the chemicals in the submissions received...[to] guide their further review by OPPT” (emphasis added).⁶²² Remarkably, this seems to negate the very public

policy position taken by the U.S. government and by the U.S. chemical industry against the extraterritorial impact of the proposed EU REACH regime. U.S. government and industry have both criticized REACH's focus on hazard-centric product *categories and substance characterizations* and its failure to account for chemicals individually based on exposure risks.⁶²³ Perhaps, the Administration is either unaware of what is transpiring at EPA or has been courted by U.S. industry, which understandably favors the HPV Challenge Program over the possibility of legislative amendments to the TSCA statute (i.e., the imposition of a pre-market authorization requirement) or more rigorous EPA implementation thereof. This might cause it to allow EPA regulators to take what are apparently inconsistent positions – i.e., extolling the virtues of the HPV Challenge Program domestically (i.e., to avoid federal regulation) while arguing internationally against analogous features contained within the EU REACH proposal:

One of the most significant results of the HPV Challenge Program has been the use of the *category approach* to address the SIDS endpoints.⁶²⁴ In fact, 81% of all chemicals addressed in test plans have been included in a *category*. *Categories* require a supporting hypothesis of how the chemicals relate to each other, as well as a description of how data for one chemical can be used to predict the toxicological responses of similar chemicals in the category. EPA and *other stakeholders* then comment on the reasonableness of the hypothesis, the adequacy of supporting data and any proposed testing. Once the sponsor submits its final *category* analysis, EPA will either agree that the *category* 'held', or will notify the sponsor that the sponsor may need to consider additional testing or restructure the *category* (emphasis).⁶²⁵

Interestingly, as in the case of the EU REACH regime, companies are required to undertake a risk assessment of specific chemicals only *after* a chemical has already been characterized, categorized and ultimately stigmatized as *hazardous* and subject to disclosure in an electronic public database.⁶²⁶ "The [EPA] guidance document offers advice on how companies could group chemicals with similar characteristics into categories, and then evaluate existing data and conduct testing to characterize the category – *all without having to perform every test on every individual chemical*" (emphasis added).⁶²⁷ "...Because exposure information was not required under the HPV Challenge Program, the amount of exposure information in the HPV submissions is limited...An exposure evaluation, if needed, occurs subsequent to the...hazard assessment."⁶²⁸

Considering how the role of quantitative risk assessment based on exposure has been minimized, one is led to wonder how much objective science is actually being employed even if industry-favored SIDS endpoints were being utilized. And what would the result be if non-SIDS endpoints were incorporated into such a screen? While there may be complexities and technical differences that separate the EPA's HPV Challenge Program from the EU's REACH, they are not as stark as they once were. Apparently, industry members of the EPA, National Pollution Prevention and Toxics Advisory Committee HPV Work Group were concerned enough about possible problems to make the following comments during a May 2004 meeting.

Will the scheme make use of qualitative exposure information?...[H]ow to handle the incorporation of non-SIDS endpoints (e.g., avian studies, carcinogenicity, etc.) into the scheme?... There is the potential that too many chemicals will be captured by Tier I, thereby exceeding the EPA's ability to process these chemicals... As chemicals move through the tier system, there is the potential for stigmatization. [While an]... external appeals process that not only allows chemicals to go from Tier 0 to Tier I [and] the other direction as well... [may provide a safeguard]... the existence of an appeals process introduces a litigious option into the process which could interfere with incentives to present credible data... [T]here needs to be detailed guidance on how to address some of the nuances of the HPV data."⁶²⁹

To the extent U.S. industry support for the EPA's HPV program results in a domestic U.S. government policy position that is inconsistent with its international policy position against the EU REACH, it will only work against the U.S. chemical and downstream industries in the longer term. As the scientific benchmark standard for evaluation and disclosure of public risks (exposure-based quantitative risk assessment) is progressively minimized and 'watered down' by subjective non-science-based hazard characteristics and EU-like reinterpretations of OECD endpoint criteria,⁶³⁰ it will become increasingly difficult to prevent the return of Delaney Clause-era pre-market regulatory authorization and legislation. Indeed, these difficulties may have already commenced considering that ENGOs such as the Environmental Defense Fund and the Natural Resources Defense Council, which sit on the NPPTAC, inquired last year about the possibility of recommending TSCA reform in light of European regulatory developments.⁶³¹ Similarly, several congressional representatives have led indirect efforts to reform TSCA (and even FIFRA) incident to last fall's international environmental treaty implementation hearings convened by the House Commerce and Energy Committee.⁶³²

And, these efforts have recently come to fruition. On July 13, 2005, the Government Accountability Office (GAO) released what is certain to become a politically-charged report that is entitled, "Options Exist to Improve EPA's Ability to Assess Health Risks and Manage Its Chemical Review Program".⁶³³ It was prepared in response to inquiries previously made by three prominent Senate proponents of the precautionary principle – Senators James M. Jeffords (I-VT)⁶³⁴, Frank R. Lautenberg (D-NJ), and Patrick Leahy (D-VT). The report claims to have evaluated EPA's ability "to (1) control the risks of new chemicals not yet in commerce, (2) [to] assess existing chemicals used in commerce, and (3) [to obtain more] publicly disclose[able] information [from] chemical companies under TSCA.

Predictably, the report concludes that the EPA lacks the ability under current federal statutes (e.g., TSCA and FIFRA) to assure that health and environmental risks are identified before the chemicals enter the stream of commerce. It then sets forth a list of recommendations that focus on ways to revise those statutes to provide the EPA with such ability. For this purpose, the report contains multiple references to the precautionary principle and hazard-based EU REACH regulation which imposes a zero-risk threshold and eschews economic cost-benefit analysis.⁶³⁵ If adopted, these recommendations would essentially end the statutory case-by-case testing approach now employed under federal law, and establish an across-the-board pre-market precautionary principle-based testing regime as the *de facto* regulatory framework standard for evaluating chemicals (and perhaps other substances and products) within the United States.

For example, the report recommends that Congress reallocate the burden of developing pre-market testing and other data from government to industry.⁶³⁶ It would also weaken industry intellectual property protections by reducing the confidentiality presently afforded sensitive and proprietary business and technical information that industry provides to regulators.⁶³⁷ Furthermore, it would link foreign and domestic industry regulatory filings, thereby requiring companies to provide the same types and amounts of pre-market information to the EPA that they are currently or in the future required to submit to the EU Commission under the more stringent EU REACH regulation.⁶³⁸ Moreover, the report recommends that the EPA develop new testing models which effectively rely more heavily on *qualitative* pre-risk assessment *hazard-based screening* tools that focus on broad categories of substances than on specific *quantitative* empirical risk assessments of individual substances.⁶³⁹ Lastly, the report recommends reallocating *both* the regulatory *and* judicial burden of proof (burden of production and persuasion) from government (the EPA) to industry.⁶⁴⁰ This would mean that industry would need to establish proof of harmlessness (zero risk) instead of government being required to show proof of harm. Based on this report's findings, it is thus obvious that various U.S. and EU political forces wish to incorporate the precautionary principle into U.S. federal law.

5. *Waste Disposal and Take-Back/EPA*

During 2003, Representative Mike Thompson (D-Calif.) introduced a bill within Congress to mandate and finance waste disposal and recovery/ recycling at the federal level. The National Computer Recycling Act (H.R. 1165)

[W]ould [have] place[d] an advanced recovery fee of up to \$10 on consumer purchases of new desktops, notebook computers, and monitors to finance ‘a national infrastructure for the recycling of used computers and an EPA grant program for local governments and private organizations that promote collection, reuse, or recycling of electronic waste...[T]he Act would [also have] require[d] EPA to submit, immediately following the bill’s passage, a study to Congress identifying “waste materials in used computers that may be hazardous to human health or the environment” (emphasis added).⁶⁴¹

As previously discussed, similar state-level proposals reflected environmental group concerns that “toxic substances in e-waste could possibly harm human health and the environment. And, as noted previously, European and American “solid waste industry members have argued that there is no scientific evidence that toxic substances leach from e-waste when it is placed in landfills.”⁶⁴²

Although this bill was never acted upon, it was recently reintroduced by Representatives Thompson and Louise Slaughter, (D-N.Y.) as H.R. 425, during January 2005.⁶⁴³ According to Thompson’s press Secretary, Matt Gerien, “Thompson has introduced the bill a third time because he believes there is more political momentum for e-waste legislation now. ‘E-waste has gained a lot of notice lately in the press,” he says. “We feel like there’s a lot more support for the bill right now.”⁶⁴⁴

In addition, Representatives Randy Cunningham (R-Calif.) and Eric Cantor (R-Va.) introduced waste recycling-related legislation (H.R. 320) during January 2005, which was referred to the House Ways and Means Committee. The bill sought to encourage the recycling of e-waste by businesses by granting “tax credits to manufacturers who recycle electronic equipment...[computers cell phones and television equipment]... ‘in an environmentally sound and responsible manner.”⁶⁴⁵

Concerned about the confusion and difficulties that industry would face in having to abide by different state waste disposal requirements, the Department of Commerce’s Technology Administration convened several roundtable meetings last fall (2004) with industry and government representatives to consider viable alternatives. “Among the policy options discussed [were] an advanced recycling fee like California’s or collection and recycling mandates on manufacturers like Maine’s.”⁶⁴⁶ A report discussing and analyzing all options was to have been presented to Congress and the White House earlier this year (i.e., during January 2005).⁶⁴⁷

X. IMPOSING PRECAUTIONARY PRINCIPLE-BASED SUPPLY CHAIN MANAGEMENT⁶⁴⁸ STANDARDS – THE GROWTH OF ‘SOFT’ LAW⁶⁴⁹

A. General

Whether U.S. small and medium-sized businesses export their U.S. manufactures to Europe, source and import their products from China, or are engaged exclusively in a domestic business, they are all likely to be affected by global supply chain management programs.⁶⁵⁰ These programs,

which incorporate the precautionary principle, are being promoted by the EU Commission and prominent international environmental groups such as Greenpeace, Friends of the Earth, the World Wildlife Fund, the Natural Resources Defense Council, the Basel Action Network, the Rainforest Action Network, and the Sierra Club. In addition, these programs are championed by corporate governance and corporate social responsibility groups such as Business for Social Responsibility, Prince of Wales Business Leaders' Forum, and the World Business Council for Sustainable Development, and the Rose Foundation.

Indeed, the EU institutions and these civil society groups have a symbiotic relationship. Pursuant to one or more alternative EU governance instruments, such as co-regulation⁶⁵¹ or self-regulation⁶⁵², Brussels financially underwrites, facilitates and promotes many environmental and corporate accountability campaigns that are consistent with and effectively implement EU policy frameworks.⁶⁵³ And, precaution-based regulations and product standards increasingly reflect the political influence wielded by such groups within the European Parliament and Commission and now the International Organization for Standardization (ISO).⁶⁵⁴ These groups, together with international labor groups such as the International Labor Organization (ILO) and the Fair Labor Association in the United States, have continued to wage campaigns of intimidation ('naming and shaming') against U.S. multinationals *and their key suppliers*, in order to shape public opinion against them. And, as these groups have become better recognized within the growing global civil society, their role and influence within the United Nations' programs and agencies and national governments has expanded commensurately.

B. The EU and the United Nations as Protagonists

The UN Global Compact Office and the UN Environment Program have convened several public-private partnership meetings and global business dialogues⁶⁵⁵ organized and promoted by EU representatives that have focused on the issue of global supply chain management. An overarching theme within these ostensibly 'voluntary' initiatives has been the promotion of *global* corporate social responsibility (CSR) standards that require companies, wherever they operate, to adopt a 'precautionary approach' (effectively, the 'wingspread' version of the precautionary principle) to environmental challenges in all product and service sectors. This, in effect, involves employing an EU-style life cycle ('cradle-to-grave' or 'design-to-disposal') approach that evaluates the potential social and environmental impacts of their design, manufacturing processes, technologies and products.

Whether they like it or not, U.S. companies are subjected to the demands of 'green investors' and civil society 'experts' (European socialists as well as American liberals) who are critical of industry's motivations and objectives. They discourage companies from investing in process and production methods that are deemed 'unsustainable', or that are otherwise considered to deplete natural resources and degrade the environment. And they encourage companies to utilize expensive and unproven technologies as a proactive and preventive measure, in order to avoid the potential that their current technologies, processes and products *might* cause irreversible environmental damage sometime in the future. In some cases, they have even pressured companies to stop their economic activities altogether if the companies cannot find what these groups consider more environment-friendly alternatives (substitutes).

The corporate social responsibility work of the Global Compact Office and the environmental work of UNEP is further supported by the activities of the U.N. Commission on Sustainable Development (CSD), which organized the 2002 World Summit on Sustainable Development (WSSD).⁶⁵⁶ CSD reports to the U.N. Economic and Social Council (ECOSOC), which functions under the authority of the U.N. General Assembly. Not surprisingly, most funding to support these agencies/organizations is derived from the European Union and EU member states. It is this last

aspect that needs to be urgently addressed by the Bush Administration if the creeping impact of the precautionary principle is to be arrested.

1. *Threatening Company Brand Reputation and Shareholder Value*

While environmental NGOs are at the forefront of these public pressure campaigns, the EU and the United Nations are the catharsis behind them. Indeed, they continue to encourage ENGOs to employ these pressure tactics against public-image sensitive U.S. multinational corporations in order to reach their small and medium-sized suppliers. A recent paper prepared by the Chief of the UN Treaty Section demonstrates what the EU Commission and the United Nations have in mind:

In particular, European Community directives and legislation in individual countries have played a major role in influencing the attitudes of private sector corporations. In some instances, corporations have responded to public pressure even in the absence of legislative rules. Increasingly, such legislation is being enforced, sometimes through action undertaken by civil society. Non-compliance with environmental legislation could lead to costly litigation and adverse publicity which corporations would very much like to avoid. Compliance with environmental standards also makes them less susceptible to public criticism... Not only would these assist in avoiding conflict with legal requirements in the target markets, it would help to avoid damaging protests by vigilant civil society groups...

The reasons for the gradual conversion of the decision makers of some private sector institutions to adopting environmental friendly policy approaches are interesting given their traditional focus on profits and the obsession with year end bonuses. *The message that civil society groups and academics have been preaching for some time, that non-compliance with global environmental standards carries financially negative consequences, may be getting through finally.* In fact, non-compliance with global environmental standards may actually result in the loss of profits and bonuses and this has been a powerful element in focusing the minds of those making critical corporate decisions...

*The continuing pressure exerted by civil society lobby groups has had a significant impact. Groups such as Greenpeace, WWF, Rainforest Action Network (RAN) and Sierra have continued to highlight corporate shortcomings and attract public attention to these. **The naming and shaming approach** adopted by such pressure groups has had a critical impact in some cases. It could be assumed that the negative publicity would harm not only the image of a company, but also its earnings. Television images of prominent individuals cutting up their credit cards issued by Citibank at the instigation of RAN may have had an impact on this bank's decision to enter into a 'common understanding of key global sustainable development issues'. Home Depot changed its wood sourcing policies following a campaign carried out by environmental groups including RAN (emphasis added).⁶⁵⁷*

2. *U.S. Manufacturing Sectors Affected*

Environmental and labor groups have continued to utilize global supply chain management to publicly compel U.S.-based multinationals commanding significant U.S. market share to adopt EU precautionary principle-based labor, environmental and CSR standards.⁶⁵⁸ As in Europe,⁶⁵⁹ these standards are then passed downstream to their many small and medium-sized suppliers.⁶⁶⁰ Some of the best known examples of this program involve the retail buying groups formed among large supermarket chains. Others involve large mass home-improvement retailers such as Home Depot

and Lowe⁶⁶¹, which have curtailed their purchases of Indonesian tropical forest-based wood products and adopted ENGO-consistent policies to affirmatively promote sustainable forestry in response to such pressures.⁶⁶² In the case of Home Depot, for instance,

From 1997-1999, environmental groups organized protests against [Home Depot], charging it was failing to ensure that its wood didn't come from endangered forests. Activists picketed hundreds of Home Depot stores, hung banners at its corporate headquarters in Atlanta and demonstrated at shareholder meetings. Home Depot was afraid the protests might lead to a consumer backlash and sliding sales... So the company agreed to stop using products from endangered forests... In bowing to the environmentalists' demands, Home Depot agreed to give preference to wood that have been logged in an environmentally friendly way... usi[ng] guidelines from the Forest Stewardship Council, a body now based in Bonn, Germany, that certifies trees as properly harvested.⁶⁶³

Such pressures seem to have paid off. During 2003, "Home Depot, Inc... used its purchasing clout to get two of Chile's biggest loggers to quit buying land that was being deforested," even though the land was being re-cultivated with plantation forests.⁶⁶⁴ Apparently, the Forest Stewardship Council's environmental preference for *natural* forests had something to do with this.⁶⁶⁵

U.S. Office-supply giant Office Depot suffered a similar fate. "[A]fter an activists' campaign against it, [the company] canceled purchases from an Indonesian paper supplier that activists say was using trees from the country's endangered forests."⁶⁶⁶ Apparently, that campaign had been launched by the San Francisco-based environmental group, ForestEthics, whose "successful campaign against the [entire] office supply industry resulted in a groundbreaking environmental policy by Staples, (and later Office Depot and Office Max).⁶⁶⁷

In January, the same group focused its contempt on Limited Brands, Inc., the owner of the Victoria's Secret chain of women's lingerie, in an effort to change its product procurement practices. In particular, the group alleged that the company had used non-recycled paper to print 398 million catalogues annually harvested largely from old growth and endangered forests in the Canadian Boreal ("the third largest forest wilderness in the world and a critical regulator of global climate") and in the Southern U.S. Multiple means were employed to achieve this desired change. They included, most recently, a full page advertisement in *The New York Times* entitled 'Victoria's Dirty Secret' featuring "a sultry model wearing fluffy wings and carrying a chainsaw." They also included over one hundred demonstrations at Victoria Secret stores, an outdoor advertising campaign waged in cities across the U.S., and the construction of a disparaging website – www.VictoriasDirtySecret.net.⁶⁶⁸ Predictably, Victoria's Secret pointed out that it uses some recycled paper already, and "will try much harder [to do so] in the future," regardless of the impact on its suppliers.⁶⁶⁹

Other examples involve U.S. mass retailers and specialty store chains that sell clothing and footwear, such as the Gap, Inc.⁶⁷⁰, Wet Seal, Disney Stores and Wal-mart Stores⁶⁷¹. Each of these companies ultimately adopted stringent procurement and/or factory reporting policies in order to mollify environmental and labor rights activists and thereby protect its stock value.⁶⁷²

As additional evidence of the pressure being applied against industry by environmental and labor activists, one should consider the recent lawsuit instituted against Nike. Nike, a Global Compact member that dutifully published its Corporate Social Responsibility Report for 2003 on the Internet, was sued by a California activist under that state's false advertising statute for allegedly misleading consumers and potential customers in communications about its labor standards. "The communications were made in defense to a torrent of criticism in the U.S. media about conditions in factories in Indonesia and Vietnam." The litigant (a representative of the Fair

Labor Association, an U.S.-based NGO) alleged that “Nike was not a responsible corporate citizen [and] that the communications were basically lies to maintain the brand image, *whilst Nike knew and allowed ‘sweatshop labor’ to exist in its supplier factories*” (emphasis added).⁶⁷³

In each case, as the result of ENGO public pressures, large manufacturers and retailers have agreed to purchase only those products that are certified environment-friendly or otherwise bear an environment-friendly eco-label attesting that the product was manufactured consistent with all relevant international environment or labor standards. As a precondition to doing business, or as a condition to remaining on a retailer’s vendor matrix, these retailers then typically require that *their suppliers and their suppliers’ suppliers* employ a life-cycle approach to product development that reflects these values. Even large international trading companies based in manufacturing countries

such as China (e.g., Li and Fung) have succumbed to supply chain management principles to retain their supplier status in both Europe and the U.S.⁶⁷⁴ Considering how quickly these Global Compact-promoted practices have spread across product sectors and throughout the many levels of the global supply chains, unless U.S. small and medium-sized businesses remain vigilant in monitoring and slowing their progress, such practices will eventually catch up with them.⁶⁷⁵

3. U.S. Service Sectors Affected

Furthermore, ENGOs have also imposed precautionary principle-based supply chain management obligations upon international companies operating within the financial services sector. On January 22, 2004, as the result of several years of public disparagement campaigns employed by the Rainforest Action Network, a U.S.-based group of environmental activists⁶⁷⁶, U.S.-based Citigroup, Inc., the world’s largest bank, was compelled to enter into an environmental pledge agreement with that organization. The ostensibly ‘voluntary’ agreement, was based on the ‘Equator Principles’, which were embraced originally by the World Bank’s International Finance Corporation (IFC)⁶⁷⁷ and later adopted by mostly European banks.⁶⁷⁸ Private banks have been targeted because “[t]he Equator Principles only apply to direct lending for project finance [generally the province of development banks]. [They do not apply to] [m]any sensitive transactions, such as mining and forestry activities, [which] are more likely to be funded through lines of credit or corporate loans [extended by private banks]....”⁶⁷⁹

The agreement obliges Citigroup to scrutinize and consider refusal of all lending projects that potentially have an impact on sensitive biodiversity areas, referred to as ‘critical natural habitats’ (e.g., tropical rain forests).⁶⁸⁰ The term ‘critical natural habitats’ is synonymous with the term ‘high conservation value’ tropical rain forests, as defined by the Forest Stewardship Council, an international environmental group that has sought to establish the Precautionary Principle as an international legal requirement in the area of sustainable forest management.⁶⁸¹ The agreement also subjects Citibank’s activities to oversight by environmental and social group third-party verifiers.⁶⁸²

On May 17, 2004, Bank of America, the second largest U.S. bank, announced with the Rainforest Action Network (‘RAN’) that it had joined Citigroup Inc. in tightening lending standards for project financing to address *potential* environmental hazards. “Bank of America agreed not to provide funding for [projects involving] resource extraction from old-growth forests, and lending proceeds will not go to logging operations in intact forests as defined by the World Resource Institute...”⁶⁸³ According to RAN, “Bank of America will also support forest protection by banning all financing for logging operations...creating strict ‘No-Go Zones’ off limits to destructive industrial activity. *Additionally, all resource extraction (e.g., oil and gas, mining and logging) in all forests must be verified by an independent third party audit*” (i.e., by environmentalists) (emphasis added).⁶⁸⁴ As in the case of Citibank, the rules concerning which forests must be protected and how have been defined by the Forest Stewardship Council, an ENGO devoted to establishing the Precautionary Principle as an international legal standard in the

area of sustainable forest management. It would appear that Bank of America may have gone further than Citigroup, however, in committing itself “to finance further mapping of intact [natural] forests around the world, and research methods to measure and reduce financial investments in greenhouse gas emitting industries.”⁶⁸⁵

It would appear, based on the above, that Friends of the Earth and RAN have utilized the same playbook and rationale to entrap American banks and investment brokerages underwriting natural resource extraction and construction activities that they have successfully employed against U.S. manufacturing and retail industries. In each case, ‘first mover’ (mostly European) companies tend to benefit from the more ‘level economic playing field’ established by the transatlantic (global) economic ‘burden sharing’ imposed by their civil society agents.

[T]he EPs [Equator Principles] represent an industry approach, in which several banks are working together. This collaboration *helps level the playing field among banks*, and *reduces the ability for corporate clients to shop around* for a bank that has lower environmental and social standards (emphasis added).⁶⁸⁶

At Bank of America... we are committing to a higher standard of environmental awareness in our business and financing practices, *and will encourage others in corporate America to do the same*” (emphasis added).⁶⁸⁷

Indeed, the Rainforest Action Network next turned its sights upon J.P. Morgan Chase. During December 2004, RAN induced a suburban Connecticut elementary school teacher to transport second-graders to New York City to protest against J.P. Morgan lending practices. According to the *New York Sun*,

Apparently, the 7-year-olds objected to the bank’s lending practices in developing nations... The children were lured to J.P. Morgan under the pretext of a poster contest... J.P. Morgan was targeted... because it balked at RAN’s initial... demands... ‘to stop lending money to projects that destroy endangered forests and cause global warming.’⁶⁸⁸

While J.P. Morgan did not, early on, officially disclose whether it would satisfy RAN’s demands, it went to certain lengths to publicly reaffirm its commitment “to develop a [company] policy that would address these issues.”⁶⁸⁹

Unfortunately, the lack of a definite time frame was not suitable to RAN. During the week of March 14, 2005, RAN activists traveled to the home of J.P. Morgan Chase’s CEO, William Harrison and proceeded to turn up the pressure. They “put up old-fashioned Wild West-type ‘Wanted’ posters featuring Mr. Harrison and calling him ‘Billy the Kid’”. The posters criticized the bank for ‘reckless investment in environmentally and socially destructive projects in dozens of countries’, and urged Mr. Harrison’s neighbors and friends to ‘ask him to do the right thing’.⁶⁹⁰ Following the incident, “a J.P. Morgan Chase spokesman told *The New York Times*... that the bank was ‘on track for April’ in terms of a review of its lending practices.”⁶⁹¹

On April 25, 2005, the Wall Street Journal reported that J.P. Morgan Chase had finally capitulated to “ecological activist[] and shareholder group[]” demands by agreeing to “adopt sweeping guidelines that restrict its lending and underwriting practices for industrial projects that are likely to have an environmental impact.”⁶⁹² According to the WSJ,

The New York banking giant -- third largest in assets in the U.S. -- is expected to issue a 10-page environmental policy today that takes an aggressive stance on *global warming, including tying carbon-dioxide*

emissions to its loan-review process for power plants and other large polluters. The bank also plans to calculate in loan reviews the financial cost of greenhouse-gas emissions, such as the risk of a company losing business to a competitor with lower emissions because it has a better public standing.⁶⁹³ And J.P. Morgan plans to lobby the U.S. government to adopt a national policy on greenhouse-gas emissions, becoming the first big American bank to pledge that kind of activism on such a contentious issue, according to shareholder activists⁶⁹⁴ ...In giving in to the protesters, J.P. Morgan is 'guilty of political correctness and cowardice,' says Niger Innis, spokesman for the Congress of Racial Equality, a civil-rights group in New York that advocates more investment in the developing world. 'A lot of these projects that banks finance have real health benefits'" (emphasis added).⁶⁹⁵

Apparently, J.P. Morgan's grandiose pledge reveals that it had not only been pressured by protest groups such as RAN. According to the WSJ, even "[b]efore the RAN campaign began last spring, J.P. Morgan had already promised socially oriented shareholder groups, including Trillium and Christian Brothers Investment Services Inc., to draft a new environmental policy."⁶⁹⁶ Thus, J.P. Morgan's rather quick surrender was most likely the result of the 'whipsawing' it had received at the hands of *both* social investors *and* environmentalists.

Hence, to the extent other US financial services companies (banks, insurance, reinsurance, capital leasing, investment brokerages, etc.) finance or otherwise underwrite the producers or users of products, substances or activities (e.g., capital equipment and/or extraction, excavation, manufacturing or construction) that might *potentially* threaten sensitive forest areas in developing countries, even by emitting carbon dioxide, they and their suppliers are also likely to fall subject to such harassment. As RAN's executive director has warned, RAN will next target these institutions' large manufacturing clients, the American automakers.⁶⁹⁷

It is most likely because of incidents such as these that a number of American companies from different industry sectors have formed a non-profit organization named GEMI (the Global Environmental Management Initiative). GEMI is devoted to demonstrating good governance and corporate social responsibility in furtherance of promoting environment, health and safety consistent with U.N. notions of sustainable development.⁶⁹⁸ According to one of its recent reports,⁶⁹⁹ GEMI companies employ supply-chain management principles to ensure that their suppliers follow suit.^{700 701}

What this means, in effect, is that the supply-chain management disciplines practiced by GEMI members do not focus primarily on 'hard' supply-chain issues such as logistics and operations, product design economics and manufacturing quality, product performance or even distribution efficiencies, which can serve to reduce costs, ensure satisfaction of 'just-in-time' inventory requirements, drive profitability and meet customer needs. Instead, GEMI companies focus on the 'soft' supply-chain issues that are important to politically influential civil society members and the United Nations, but which have little bearing on the corporate 'bottom line' or on *actual* consumer needs. Unfortunately, the small and medium-sized suppliers of such companies have little or no say in deciding whether or not to appease these constituencies. They are only told that it is the 'right thing to do',⁷⁰² can uncover 'hidden sources of business value' and can 'enhance supply chain performance' (emphasis added).⁷⁰³ In the case of most small and medium-sized companies, however, EHS/sustainable development initiatives, by themselves, will do nothing at all to reduce costs or generate profits, regardless of whether such value is hidden.

4. Accounting Broadly for Company and Brand Reputation

Since its inception, the U.N. Global Compact Office's primary mission has been to convince U.S.

companies of the moral, social and environmental virtues of developing broader and more transparent internal governance systems, in line with evolving ‘international’ (mostly European) corporate social responsibility (CSR) standards that support sustainable development.⁷⁰⁴ It has also endeavored to link CSR performance with financial performance by hypothesizing about how the regular flagging of EHS issues to corporate directors and executives and the detailed and accurate public reporting and disclosure of both financial *and* non-financial EHS-related items, can enable companies to achieve qualitatively better corporate governance, improved brand reputation and enhanced shareholder value.⁷⁰⁵ What the Global Compact Office is really (not) saying, however, is that better corporate governance means less legal liability and fewer shareholder resolutions and public disparagement campaigns that reduce shareholder value. In other words, unless companies

go along with these ‘ethical’ initiatives, civil society and green and social investors⁷⁰⁶ will continue to monitor and harass them - in the boardroom, in the courtroom, in the news and before regulators.⁷⁰⁷

Judging from another recent GEMI report,⁷⁰⁸ it would appear that more than forty (mostly American-based) ‘first mover’ multinationals have already decided to accept this reality. The report broadly discusses the financial benefits of EHS risk management and disclosure.

“A substantial body of evidence exists on how EHS practices contribute to the bottom line, including reductions in operating costs, insurance premiums, and capital costs. *It is the contention of this document that EHS practices contribute to shareholder value in a broader and more strategic way: by building critical organizational capabilities. As such, the markets value a company's EHS performance every day, whether it contributes to that valuation exercise consciously or not*” (emphasis added).⁷⁰⁹

What is most intriguing about this Ernst & Young (E&Y) authored report is its bold claim that, “*50 to 90% of a firm's market value can be attributed to intangibles like EHS*” (emphasis added).⁷¹⁰ According to the report, “[i]ntangibles such as R&D, proprietary intellectual property and workforce skills, world-class supply networks and **brands** are now the key drivers of wealth production *while physical and financial assets are increasingly regarded as commodities*” (emphasis added).⁷¹¹ Another recent report analyzing the U.S. market prepared by PricewaterhouseCoopers (PWC), found that “*intangible assets and goodwill [together] constituted 74 percent of the average purchase price of acquired companies in 2003 (with, respectively, intangible assets representing 22 percent and residual goodwill 52 percent)*” (emphasis added).⁷¹²

The International Accounting Standards Board defines “an intangible as an “*identifiable, non-monetary asset without physical substance held for use in the production of goods or services, for rental to others or for administrative purposes*” (emphasis added).⁷¹³ U.S. GAAP rules describe intangibles and ‘goodwill’ as follows:

An enterprise may *acquire* intangible assets from others *or may develop them itself*. Many kinds of *intangible assets* may be identified and given reasonably descriptive names, for example, patents, franchises, trademarks, and the like. Other types of intangible assets lack specific identifiability. *Both identifiable and unidentifiable assets may be developed internally*. Identifiable intangible assets may be acquired singly, as a part of a group of assets, or as part of an entire enterprise, but unidentifiable assets cannot be acquired singly. *The excess of the cost of an acquired company over the sum of identifiable net assets, usually called goodwill, is the most common unidentifiable intangible asset*” (emphasis added).⁷¹⁴

The findings of the E&Y (GEMI) and PWC reports noted above apparently take into account the potentially negative impact that recent accounting rule changes could have on public companies' financial reporting of goodwill and other valuable intangibles *acquired* pursuant to a business combination. Such rules were first reexamined in the U.S. during the second Clinton Administration and then revised by the U.S. Financial Accounting Standards Board ('FASB') during 2001.⁷¹⁵ The International Accounting Standards Board ('IASB') recently revised their rules during 2004 for the ostensible purpose of promoting better M&A transparency for investors,⁷¹⁶ amid "significant pressures to converge the U.S. and International Financial Reporting Standards to establish one set of global standards".⁷¹⁷ They essentially require identification and valuation of intangible assets with finite useful lives which may be ratably amortized (expensed against profits and written down on the balance sheet) annually over the course of their expected

lifetimes. They also require, with certain exceptions⁷¹⁸, the annual reevaluation of goodwill and other *unidentifiable* intangibles with potentially indefinite useful lives to see if they have been impaired during the fiscal year. This determination requires companies to annually test intangible assets for market fluctuations in value by comparing their current 'fair values'⁷¹⁹ with their recorded 'carrying' (historical cost⁷²⁰) amounts – i.e., they must be 'marked-to-market'. To the extent such goodwill is found to be impaired⁷²¹ an immediate charge to profit and loss and to the balance sheet must then be taken. Notably, these rules have not changed for *internally developed* goodwill which must continue to be booked at historical cost until acquisition or disposal of the business, unless substantially impaired.⁷²²

Based on these new rules, therefore, it would seem that the burden is on companies to determine whether there exists an 'EHS performance' intangible asset that will be or was previously acquired in a business combination, which can be separately identified, assigned a finite useful life and then amortized. If not, such an accounting item must be treated as an unidentifiable asset with perhaps an infinite useful life, that comprises part of an established brand name and/or company goodwill – which is thus susceptible to 'impairment' and subject to yearly marked-to-market rules. While in each case, an annual charge would likely be incurred and disclosure required for financial statement purposes, "the reported amounts of goodwill and intangible assets (as well as total assets) will not decrease at the same time and in the same [predictable] manner as under previous standards. There may be *more volatility in reported income* than under previous standards *because impairment losses are likely to occur irregularly and in varying amounts*" (emphasis).⁷²³

It is most probably the relationship between asset impairment and the risk of stock price volatility that environmental activists and social investment groups find most intriguing. Were it possible to link a company's EHS performance to an established company brand or overall company goodwill, then negative ENGO political pressures and public disparagement campaigns would have that much greater of an influence on board decisions, corporate activities, and company stock market value.

However, these rules do not seem to adequately address the treatment of contingent liabilities that may be acquired pursuant to a business combination. Therefore, what the GEMI report also appears to be saying, albeit indirectly, is that when ascertaining future hypothetical EHS hazards that are not susceptible to current scientific certainty conventional accounting guidelines are not enough.⁷²⁴ "[The] report adopts a broader view: 'Intangibles' describes the human, intellectual, social and structural capital of an organization. Thus, intangibles include people, relationships, skills and ideas that add value *but are not traditionally accounted for on the balance sheet* (emphasis added)."⁷²⁵ If this is indeed what the report is saying, intentionally or unintentionally, such view describes the deep-seeded social investor, civil society and global stakeholder notion that "business fundamentals [should] go beyond audited financials."⁷²⁶

It also likely reflects, as does the UNEPFI report,⁷²⁷ a positivist or utopian view of the social and philosophical role that accounting information *should* serve in an increasingly shared and interconnected global community.

Members of society are interconnected through their economic and social interdependencies: employees to investors to consumers to taxpayers to mothers to welfare recipients to students to insomniacs. *Accounting information is not merely a manifestation of this myriad of interdependencies; it is a social scheme for adjudicating these relationships.* We are all costs and revenues to each other; everyone is potentially a benefactor and a victim in the accounting nexus of social decisions. How should we decide on the rules that adjudicate and galvanize our social relationships? What kind of understanding do accountants need for inventing our history in this way? Contemplation, reflection, criticism, and debate about the nature of society and its potentialities would seem to be indispensable for achieving constructive social change (emphasis added).⁷²⁸

According to at least one sociologist, this view is clearly indicative of a longstanding cultural and political movement within Europe that desires either to eliminate or significantly modify modern capitalist accounting and the free enterprise system which it supports. This movement is grounded in the belief that the current capitalist system “does not and cannot reflect [egalitarian] environmentalist values” such as the precautionary principle.⁷²⁹

It is not surprising...that those who wish to live a life motivated by narrow and steep hierarchies or by greater equality of condition *would reject the accounting that they rightly suspect of upholding competitive individualism in favor of accounting principles and practices that would support their preferred cultures (or way of life)*...Where change in accounting may be sought because it is believed that the present forms misrepresent the economic conditions of firms and of the economy, change in political beliefs about what ought to be represented may also lead to a desire for accounting conventions to mirror that more desirable state of affairs. *So it is not surprising that, as environmentalism grows as a political movement, there are efforts underway to manifest its values in accounting so as to do what we all wish to do, namely, to hold others accountable for their impact on our cherished values.* Because the social reflection of environmentalism is found in a desire for greater equality of condition among human beings...proposed changes in accounting to include environmental values...are intended to move in a singular egalitarian direction...*The changes sought in accounting are also premised on factual beliefs about the vast harms done to the natural environment and life forms of all kinds by modern technology. If these beliefs are unwarranted, the case for accounting change collapses.*

...A major difficulty in devising new forms of accounting for environmental values is how to cast harm to the environment so as to fit within national income accounts and a firm's balances sheet....Nevertheless, in modifying rather than rejecting national economic accounts and conventions, an important concession to standard methods of accounting has been made. *Environmentalists themselves are divided over whether cost-benefit analysis is the work of the devil or whether a more environmentally concerned form of cost-benefit analysis is desirable.* One side (color them dark green) claims that environmental values are, in essence priceless and that it would be morally wrong and perhaps tactically unwise to play the cost-benefit game. They reject the net benefit as the criterion of choice on the grounds that it would encourage industry to do more harm and trivialize their moral stance. The other side (color them light green) realizes that objecting to cost-

benefit analysis per se is to leave environmentalists out of the economic game altogether. *They are interested in taking account of environmental values so as to raise the cost side of the equation and therefore lead to decisions more acceptable to them.*⁷³⁰

*...Management decisions might be affected if the new accounting rules made it appear that there were less income. Accounting has a double function – it not only informs potential users but also, through its effects on stock and capital markets, may indirectly affect management decisions. Perhaps these indirect effects are what supporters of environmental depreciation aim at. Obviously, in order to affect prices, bookkeeping changes must be tied either to governmental policy or to profit and loss statements in company accounts (emphasis added).*⁷³¹

This sociologist concludes that, if this movement were successful in altering capitalist accounting conventions, the results are not likely to be positive.

The larger the proportion of national product devoted to environmental purposes, the less wealth will be generated. The national economies and the people within them will be made poorer, both in regard to the wealth they might have accumulated and in regard to their life circumstances. Democratic politics will become more conflictful and the sustainability of democracy will be cast into greater doubt. At the same time, however, environmental values other than sheer preservation will not be furthered. The reason is that environmentalists are mistaken more often than not about the existence of environmental catastrophes or about the causes of those that do occur or about the cause-and-effect relationships involved in such matters as trace exposures to industrial chemicals or the extent, if any, of global warming. There is conflict between those who expect loss of jobs or income and environmentalists. But those who would have had jobs had the economy been allowed to develop under its former accounting rules or who would have benefited from much cheaper food from genetic engineering, will not realize what they have lost...The darkest green environmentalists want to replace capitalism with a better political economy but are unable either to specify it or to provide appropriate forms of accounting...[Their] demands...are better seen for what they are – demands for radical system change – while their specific claims for taking this or that out of market considerations may be bought off piecemeal...[T]he light green varieties...[on the other hand]...propose accounting changes that are incompatible with the logic of the capitalist system...*Of the two, the meliorists are the more dangerous to capitalism. For if their changes to national accounts are accepted, capitalism will corrode from the inside while the system will be held responsible for its growing confusion (emphasis added).*⁷³²

XI. THE BROADER INTERNATIONAL LEGAL, POLITICAL AND ECONOMIC IMPLICATIONS

Profound legal, political and economic differences exist between Europe and America. And, while they are not easily reconcilable, they do, to some extent, explain how and why the precautionary principle has been exported to the U.S. to change the regulatory, judicial and economic landscape, both here and abroad.

A. The Legal Rights of Individuals vs. the Collective Legal Rights of Society

Some American and European academics have concluded that the different approaches employed by Europe and the U.S. to address food safety (and arguably environmental) risks (a *hazard* assessment ex-ante *regulatory* approach vs. a *risk* assessment ex-post market *legal* approach) are attributable to fundamental underlying constitutional differences between these two regions. These constitutional differences, in turn, reflect different notions as concerns the rights of individuals versus those of society, of the role of government in balancing between those rights and of the relative functions served by the different institutions of government:

The US system is rooted in the Bill of Rights and the sanctity of the individual. 'The Constitution of the United States...places great symbolic weight on human rights. It elevates the basic rights of man to supreme constitutional status. Judges then are the protectors of those rights and thus have a role superior to that of the other branches of government.' England on the other hand, has no such anchor. *English law observes rights as residual and set in the dynamic process of Parliament rule...* 'In theory, in practice and in constitutional structure and procedure, the British courts have always been firmly placed under...Parliament. The Parliament is the ultimate and unchallengeable maker of the law they apply' (emphasis added).⁷³³

These observations are extremely significant especially considering that England's societal perspective towards risk is not dissimilar to that of the European continent:

[W]here[as] the US system focuses on the individual...the English system focuses on the polity. In application of the rights of the individual are unchangeable while the needs of the polity change...A society where individual rights are pre-eminent worries when rights are trampled, thus each individual and firm has standing before the court of law...In the British system, because of the role of the Parliament the unit of analysis is the polity, which balances the rights of individuals against the needs of society. Letting go the guilty is far worse because society as a whole is made worse off. In this way it can be said th[at] *liberty trumps democracy (society) in the US, while democracy (society) trumps liberty in the UK* (emphasis added).⁷³⁴

For the most part, this explains why food safety and environmental protection are basically legal issues in the United States and regulatory issues in Europe. However, there is another reason - the tort law and product liability statutes throughout Europe are relatively undeveloped as compared to those within the U.S. "In the UK, for example, there are no contingent-fee contracts but instead a loser-pays rule that minimizes the quantity of frivolous lawsuits and may stand in the way of an individual's right to justice."⁷³⁵

A ideal example of these distinctions lies within the European Aarhus Convention.⁷³⁶ This treaty essentially mandates that all economic activities planned by private industry within the territories of treaty parties, that *may* (be perceived to) currently or in the future have a significant effect on the environment, are subject to public disclosure, review and accountability before they can be undertaken.⁷³⁷ This obligation serves to guarantee the disclosure of even confidential, proprietary business and third-party information, as well as intellectual property, whether or not protected by law, if the public interest would be thereby served.⁷³⁸ Whether or not such activities would comply with the law is irrelevant. And the disclosure requirement so imposed goes beyond the typical obligation to provide relevant information pursuant to national rules on environmental

impact assessments.⁷³⁹ It also serves to empower and provide a legitimate platform for environmental non-governmental organizations to disagree with and shape public opinion against planned company activities.⁷⁴⁰ It is this type of disclosure and accountability obligation that the EU is endeavoring to export throughout the world as an international legal standard, particularly through the United Nations.⁷⁴¹

B. EU Cultural Values Are Critical of U.S. Free Markets – The Role of Social Welfare Theory

Reading between the lines, it is obvious that Europe's goal of establishing the precautionary principle first, as a regional regulatory framework, and then, as an absolute global legal standard, actually represents a much broader political and social agenda. "...European regulation is...not really economic in focus. Rather, the EU is a *political* undertaking. There may be economic effects from European regulation, but the objectives are *political*" (emphasis added).⁷⁴² In effect, it is to impose on the U.S. and all other nations *its* regional value system vis-à-vis a disguised global social wealth redistribution scheme. That scheme is cast in politically attractive and altruistic terms of health and environmental protection, developing country aid, technology transfer, capacity building and collective global security. However it is actually harmful to developing country societies and inhibits real developing country economic growth⁷⁴³, as it is premised on idealistic notions of charity, social morality and quality of life that define the low or slow economic growth model embraced by Europe – i.e., the enhanced welfare state. The EU's scheme is critical of and aspires to compete with free market capitalism. It also calls upon global industry to exercise corporate social responsibility (CSR)⁷⁴⁴ in its dealings with peoples of different societies, in a manner set forth by the high priests of the U.N. Global Compact⁷⁴⁵ Office, who happen to be Europeans and American Europhiles. Unremarkably, the brand of CSR that Europe is selling to the world is merely reflective of the unique relationship (i.e., the social contract) that exists between *European* businesses and *European* governments. This relationship goes beyond the letter of the law to ensure what *European* civil society expects as a "just social and economic order".⁷⁴⁶

These *regional* values are clearly embodied within the social welfare doctrine of 'sustainable development' that the European Commission and European civil society groups have tirelessly promoted as a new *global* 'development' paradigm at the United Nations since, at least, 1992.⁷⁴⁷ Sustainable development, as so defined, reflects the fears of Thomas Malthus⁷⁴⁸ and remains a vague and 'tired' concept that essentially means 'development that is consistent with future as well as present needs.' While Europe has advertised sustainable development as entailing three primary concerns – environment, social and economic - the EU and other like-minded nations have proceeded to define this term in a negative fashion (i.e., as a necessary remedy to the failures of free market capitalism, unbridled economic growth, technological innovation and legal protection of contract and intellectual property rights). The implication is that these pursuits are inherently inconsistent with sustainable development, which must instead focus primarily on ensuring health and environmental protection on a global level through wealth and 'know-how' redistribution. Hence, there is always an urgent need for more and more regulation and for technical and social standards and third-party audit and verification schemes (accountability mechanisms) to implement them.

The EU has arguably utilized this concept as a reason for calling on World Trade Organization member governments to support changes to the international legal benchmarks they currently rely on to evaluate the safety or harmfulness of everyday products, processes and activities. Europeans believe that such changes are possible so long as they can establish the precautionary principle as an absolute international and U.S. legal standard. If they are successful, the role of science and economics in assessing and managing global public risks would be severely undermined; this, in

turn, would effectively slow down U.S. technological innovation and economic progress and thereby threaten American industries' entrepreneurial spirit and global competitiveness.

Europeans have indeed taken great pride in their evolved version of the welfare state, which relies on government regulation to protect the fear-induced European public from perceived health and environmental risks and social inequities posed by the activities of free markets:⁷⁴⁹

...Europeans remain deeply committed to the idea of the welfare state, nor have they repudiated the notion of the public sector. Rather European governments are looking for new and innovative ways of dealing with the problems, just as they are seeking to reinterpret the welfare state's traditional values... Yet, despite the troubles besetting it, *the welfare state is seen by Europeans as one of the continent's greatest achievements, an essential element of a civilized society and the foundation of social consensus* (emphasis added).⁷⁵⁰

According to two European environmental law experts, this predisposition towards a socialist-oriented regulatory model is manifested in the EU's proposed REACH regulation:

The scope and intrusiveness of the draft REACH regime suggest a move to exploit the public's unfounded fears. But in the name of health and environmental protection, REACH proponents may be after something bigger. Although the proposed system would differ from past examples of centralized state planning economies, it may produce some of the same results, given the broad discretion granted to government agencies, who will have the power to decide for all of us which chemicals (and thus which products) we should want and which chemicals we should avoid.⁷⁵¹

And, it has also manifested itself in the area of food safety. American and European academics, for example, have evaluated the feasibility of a proposed regulatory model that endeavors to establish a *principal-agent* relationship between government and private food companies. Pursuant to this model, the risk-neutral government would delegate to risk-averse private companies the costly burden of pursuing food safety (a public good) on behalf of society. Such a delegation would be effectively secured by providing industry with the right incentives (via use of penalties or compensation schemes). These incentives would be provided mostly to the larger food companies, which are assumed to be the only ones capable of achieving the market efficiencies and rates of compliance necessary to significantly reduce the costs of ensuring food safety. In the end, government would expect such companies to function as risk-neutral government agents (i.e., as government's eyes and ears) for purposes of managing/controlling the food safety (HAACP) process in which the many smaller food companies positioned up and down the food supply chains participate.⁷⁵² However, to accomplish this in the U.S., where fundamental individual rights are protected at the constitutional level by the courts, would require extra-regulatory incentives such as insurance bonds, product and process branding or more aggressive use of the legal system against companies.⁷⁵³

Unfortunately, according to two globally renowned economists, "the essence of this belief [faith in the role of government in the markets] is unlikely to change soon", since it is well entrenched in Europeans' daily political and economic lives:

Europe's first convergence after World War II – long before Maastricht – was on the mixedeconomy [characterized by strong, direct governmental involvement in the economy]... The mixed economy, it was felt, would deliver full employment and growth. A significant part of that growth would, in turn, be *redistributed through social spending that would ensure security and social peace*... The model lasted for four decades... [Although what] was confront[ed] in Western Europe... in the

mid-1990's...[was] 'the end of the welfare state in its classical form,' observed Karl-Otto Pohl, 'it cannot be reversed completely. You can't undo developments of the last hundred years (emphasis added).'⁷⁵⁴

C. Exporting Social Welfare Statism to Constrain U.S. Industry – Securing a Competitive Economic Advantage

At the global level, Europe's vision of a utopian society also has a pragmatic dark side – Europe's need to maintain its global economic competitiveness by avoiding what some academics have referred to as a 'prisoner's dilemma'.⁷⁵⁵ Europe's penchant for *over*-regulation and its embrace of 'enhanced welfare state' economics have arguably rendered it unable to close its economic growth gap with North America and Asia, and likely explains why Europe has fallen behind in its public quest to surpass U.S. economic competitiveness by 2010.⁷⁵⁶ Tragically, it has also contributed to the German unemployment rate, which was recently reported to have risen "above the politically sensitive 5m [million] mark for the first time since the end of World War II."⁷⁵⁷ Europe, therefore, has no choice but to export its high cost precaution-based regulatory framework abroad in order to shift a portion of the economic burden (hence the familiar term 'burden sharing') to other countries, especially the United States. It is believed that this will serve to slow down American technological and economic progress enough, at least, for European industry to regain its international competitiveness.

Hence, contrary to the assertions of former EU Trade Commissioner (and current WTO Director General) Pascal Lamy, Europe's exportation of the precautionary principle is not motivated solely by its desire to preserve a European cultural preference for natural foods, a healthy body, a clean environment and the avoidance of risk.⁷⁵⁸ There is a growing global awareness that the EU has intentionally employed the precautionary principle for international economic gain in the sphere of international trade under the guise of pursuing sustainable development. It has systematically targeted the precautionary principle against the competing high tech and more economically efficient industrially processed exports of the U.S. and the low-cost commodity-driven agricultural and natural resource-related exports of developing countries. In other words, Europe has employed precaution as a protectionist device to 'level the economic playing field' for its ailing, lagging or underdeveloped industries that suffer from a 'comparative economic disadvantage.'

According to business professor and renowned management expert Peter Drucker, Europe's efforts to rewrite international trade rules to secure a competitive advantage for its industries is partially reflective of the evolving pluralistic global economy now evolving. Drucker argues that such economy actually consists of four distinct economies rather than one: "a world economy of information; of money; of multinationals (one no longer dominated by American enterprises); and a mercantilist world economy of goods, services and trade. These world economies overlap and interact with one another. But each is distinct with different members, a different scope, different values and different institutions..."⁷⁵⁹

Professor Drucker also observes that Europe's exportation of protectionism under the guise of strict health and environmental regulation is a hallmark of the trading bloc mentality that characterizes the new economy of mercantilism.

...[M]ercantilism is increasingly becoming the policy of 'blocs' rather than of individual nation-states. These blocs—with the European Union the most structured one, and the U.S.-dominated NAFTA trying to embrace the entire Western Hemisphere (or at least North and Central America)—are becoming the integrating units of the new world economy. Each bloc is trying to establish free trade internally and to

abolish within the bloc all hurdles, restrictions and impediments, first to the movement of goods and money and ultimately to the movement of people...*At the same time, each Bloc is becoming more protectionist against the outside...[A]... 'home market'—small enough to be protected and big enough to be competitive—is what the “blocs” provide. Thus, the European Union is already in the process of creating the institutions for its bloc to be effective in this world economy: a European Parliament, a European Central Bank, a European Cartel Office and so on* (emphasis added).⁷⁶⁰

The World Bank referred to this practice within one of its recent reports. Its findings reflect that European industry has worked alongside the EU Commission and European environmental groups (i.e., there was a convergence of interests) to adopt a region-wide precaution-based import ban against American, Canadian and Argentine GM food, feed, and seed exports. Apparently, the smaller European farmers, less efficient European food producers and relatively undeveloped European biotech companies were seriously concerned that the lower GM export prices generated by the high volume GM production of these large exporters would drag down *both GM and non-GM* food prices in Europe.⁷⁶¹ This is not, however, the only World Bank report that has addressed the extra-territorial burdens imposed by European precaution-based *food* regulations and product standards; in fact, there are a number of others.⁷⁶² Together they reveal a troubling pattern – namely, that protectionist motivations also underlie many other EU *nonfood*-related regulations and technical standards.

Unfortunately for American industry, European companies have become particularly adept at persuading the EU Commission and European national governments, as a matter of ‘fairness’, to impose upon foreign products and processes the same stringent and high cost regulations and standards to which similar European products and processes have been subject. And EU regulators have become equally adept at crafting and implementing EHS-driven public policy goals that can provide European companies with the political ‘cover’ necessary to constrain foreign competition, and thereby regain their competitive edge.⁷⁶³ In fact, the EU Commission believes that, by integrating regional precaution-based environmental protection requirements also within multilateral environmental treaties and the European and international standardization processes⁷⁶⁴, it can change WTO law so as to allow for environment-friendly products and processes (i.e., ‘environmental technologies’).⁷⁶⁵ This will enable Europe to secure new global markets and a competitive economic advantage for its growing environmental goods and services industries to the extent it is able to develop objectively measurable environmental *performance* standards.⁷⁶⁶ Until that occurs, however, the benefit gained by EU industry essentially amounts to a ‘negative competitive advantage’ roughly equivalent to the added costs incurred by foreign companies of going beyond average international production and processing costs to satisfy the more rigorous EU market standards.

As precautionary principle advocates have explained, this *economic* rationale is, in fact, historically based. Indeed, it first took on importance in connection with European air pollution control efforts during the 1980’s:

Initially precaution was [used] by German authorities in the early 1980’s to justify unilateral application of technology based standards to reduce acid rain. But once in place, *the Germans pressed the EU to adopt similar standards across the rest of Europe, to prevent its own industries being placed at a competitive disadvantage.* This was not enlightened environmentalism at work but the dictates of a competitive market of member states...‘The policy debate was more dominated by competitive considerations rather than environmental concerns...’...‘The precautionary principle therefore helped to lay the conceptual and legal basis for a proactive environmental policy, which once spread into Europe, was also directed at ensuring ‘burden sharing’ in order that German industry did not lose its competitive edge, but rather gain new

markets for its environment-friendly technology and products' (emphasis added).⁷⁶⁷

And today, long after the EU's formation⁷⁶⁸, the practice of exporting abroad the high costs of EU precaution for economic reasons is apparently alive and well. These concerns were revealed once again within a 2000 EU Commission report which discussed various alternatives for mitigating the adverse effects of precaution-based sustainable forest management (SFM) standards on the competitiveness of Europe's forest-based industries,⁷⁶⁹ and at a related EU Commission strategy session convened earlier that year. Ultimately, it was decided that EU SFM standards should be exported *globally* via the commercial markets to enhance EU competitiveness.

...EU forests are for their most part well managed, engendering higher costs to forest owners and to wood buyers, but no market advantage is accrued over competitors, many of whom do not always bear the full costs of SFM [sustainable forest management]. *Thus a key recommendation of the study [of the competitiveness of the European Union woodworking industries was to 'export EU environmental (and social standards), in other words, to promote the raising of forest management standards world-wide – which is good for forests – and thereby enhance competitiveness – which is good for [EU] forest-based industries (emphasis added).*⁷⁷⁰

European industries have not only been willing, but also eager to export the legal and economic burdens they will incur regionally as the result of an enacted REACH chemicals regulation. Comments made by two prominent EU industry trade associations clearly reflect this.

According to Eurochambres (the Association of European Chambers of Commerce and Industry),

There must be a '*level playing field*' for chemicals (particularly *imported* chemicals) as constituents of finished products (e.g., toys, textiles). Substances with potential impact on human health or environment imported to the EU as constituents of products must not be exempt from notification. Controls must be in place to ensure that finished products imported to the EU do not contain untested and unregistered substances. This should ensure that EU manufacturers remain competitive with finished products from outside the EU (emphasis added).⁷⁷¹

Similarly, CEFIC (the European Chemical Industry Council) has argued that,

The chemical industry is truly global. The EU industry needs a *level playing field* with the rest of the world in order to compete. There is not support for amending legislation in the USA or Asia, who are our main competitors, to take a parallel approach to REACH. There, REACH imposes a cost for chemicals testing and registration which our non-EU competitors will not have to bear. WTO rules and administrative practicalities prevent EU legislation from banning the import of finished articles containing non-registered substances...It is essential that a solution compatible with WTO rules be found to create a *level playing field* between EU producers of both substances and finished articles, and non-EU manufacturers of the same finished articles who are excluded from the requirements of the REACH system (emphasis added).⁷⁷²

This was also made clear for all to see within the 'Conclusions and Recommendations' section of the April 2004 business assessment report prepared by the Federation of German Industries (BDI):

The review of existing studies and the estimate on a European level shows that burdens by the new legislation on chemicals in Europe will potentially affect the Chemical Industry in a dramatic manner...Costs will burden mainly price-sensitive products. Changes in time to market, duty of authorization and duty for disclosure are issues which touch the innovative power of the European chemical industry...Industry does not expect an immediate innovative push. For this to happen, *global implementation of the EU substances policy would be a fundamental prerequisite. In such a situation, all products would be manufactured under comparable conditions and every producer would be confronted with the effects of the new substances policy. Through this equal pressure on all competitors, the producer with the most innovative product would have a competitive advantage and so there would be an incentive for innovation. However, as long as the global environment is not comparable and producers can manufacture their products outside Europe under easier conditions, then this hoped-for positive effect of an innovative push will tend to be transformed instead into the negative effect of a production loss...*The fundamental aim of European legislation must be to achieve practical reform of the EU substances policy *and so minimize the negative consequences for German industry* (emphasis added).⁷⁷³

In response to these pleas, which seek the preservation of EU global competitiveness in the chemicals and downstream sectors⁷⁷⁴, the EU Commission has embarked on an extensive campaign that has expressly promoted the proposed REACH regime as a *global* standard. In this regard, it has stated the following:

As far as exports are concerned, there will be a potential risk of some loss of market share if prices of domestically produced chemicals are forced up due to REACH. This namely holds for cases where competitors exist on third markets that totally neglect the important European market. Indeed, it would be only these companies that would completely escape the REACH legislation and its testing and registration requirements and costs associated to this...In the longer run, the balance of impacts on competitiveness on these third markets as well as on the European market *will also depend on the extent to which the REACH regime is successful in establishing itself as a new international standard. This would give the EU chemicals industry a substantial boost in terms of international competitiveness* (emphasis added).⁷⁷⁵

Europe's exportation of its industries' higher regulatory cost structure and legal obligations to other countries, particularly the U.S., and its channeling of environmentalist agendas and consumer fears through the precaution-based prism of the Kyoto Protocol is intended to ensure the future global competitiveness of European industries. As pointed out by Australian and European scholars, the Protocol, as well, should be viewed for what it really is — a guise for European trade protectionism:

...Kyoto activism is in reality not about saving the world. It is about exploiting Green sympathies and justified environmental concerns to convince the world that it should accept a new form of *European protectionism*...“If one looks at the world from Brussels, the Ruhr or Berlin, the motivation for pushing centrally planned Kyoto controls becomes understandable. *Political and industry leaders, as well as the people, observe the growing political costs of proliferating interventionism, fuel levies, high taxes, and collective welfare for a rapidly aging population.* Europe's increasingly corporatist-collectivist policy design confronts them with the loss of manufacturing prowess and, more recently, deflation. However, they are loath to surrender the

dream of a regulated, featherbedded social democratic society to competitive world markets and young, energetic competitors outside.

...[I]t is easier to cope with a rationing system such as the Kyoto controls if one has little or no economic growth, as is the case in Europe. Fast-expanding economies with growing populations, such as Australia or America, easily overshoot fixed targets. Moreover, the baseline for the Kyoto calculations contains, in the case of Germany, not only West German emission levels, but also the massive emission of East German industry, which was quickly wound down after the fall of the Berlin Wall as it was uncompetitive. It is therefore easy for the Europeans to hold themselves up as paragons of Kyoto compliance. Europe's remaining industry core is based on metal products and high skills. European industry and tax collection are directly affected when potential disasters in Gladstone – or skilled people in Vancouver or Ohio with access to cheap energy, metal ore, technology and skills – set out to conquer world markets with new metal products. It is only natural for Europeans to try and handicap the new competition by seeking supposedly virtuous pretexts, such as saving the world from global warming...Seen in this light, the European Union's Kyoto drive only replicates EU tactics of fuelling global GM hysteria to protect the interests of EU agriculture... (emphasis added).⁷⁷⁶

Alternatively, the Kyoto Protocol may be viewed as an export-promotion and subsidization vehicle that is intended to provide European industries and governments with a 'first mover' advantage in deploying climate change mitigation technologies globally in pursuit of EU sustainable development goals. The EU hopes to market and provide those technologies to economic growth-oriented developing and transition country treaty parties through the Protocol's 'joint implementation' program and 'clean development mechanism':

Investment in environmental technologies has the potential not only to increase employment and economic growth within the EU, but also to promote sustainable development at the global level, particularly in developing countries...Environmental technologies can thus play an important role in achieving internationally agreed development goals. The implementation at the national level of multilateral environmental agreements and the World Summit on Sustainable Development commitments is also generating an increasing demand for environmental technologies in developing countries...The CDM and JI under the Kyoto Protocol offer great potential for fostering technology development in developing countries.⁷⁷⁷

The EU has especially targeted its technology sales efforts toward the not-as-yet defined climate strategies for the post-2012 Kyoto period.⁷⁷⁸ One need only consider two of the initiatives launched by the EU at the 2002 World Summit on Sustainable Development in Johannesburg (e.g., the energy initiative⁷⁷⁹ and the renewable energy coalition⁷⁸⁰) to see how the EU is poised to benefit from the public fears it has fanned about climate change. Actually, it may be argued that each of the precautionary principle-based multilateral environmental agreements currently in force⁷⁸¹, which must be implemented at the national level to achieve the European notion of sustainable development, were crafted to ultimately benefit Europe economically:

At [the] multilateral level, all major international environmental agreements include provisions concerning technology transfer and capacity building...[The] initiatives launched by the EU in Johannesburg will also be important in promoting the diffusion of environmental technologies...The overall aim is therefore clear: to exploit the potential of environmental technologies for meeting the environmental challenges

faced by mankind *while contributing to competitiveness and growth* (emphasis added).⁷⁸²

Furthermore, Europe's action plan for stimulating technologies for sustainable development also focuses on those environmental technologies that may be deployed to address potential chemical hazards. In addition to proposing the REACH regulation on a regional level for this purpose⁷⁸³, the EU has also operated behind the scenes to promote the United Nation Environment Program's Strategic Approach to International Chemicals Management Initiative (SAICM).⁷⁸⁴ Through the U.N., it is shaping SAICM into the global version of REACH. Predictably, SAICM meetings have already devolved into a forum for the dissemination of overly restrictive, hazard-based and non-economic cost-benefit orientated regulatory principles identical to those contained within the EU REACH. As a result, it is only a matter of time before SAICM will apply the precautionary principle to all of the world's chemicals industries, as well as to all of the world's downstream and upstream industries. Like other UNEP treaties, the goal of this initiative is to develop a *global framework for regulation*⁷⁸⁵ – this time, for the use and production of chemicals – so as to prevent or minimize what Europeans perceive as mounting but uncertain health and environmental hazards that may arise sometime in the distant future. But as in all other cases, European industry is poised to exploit such an opportunity to advance its economic interests at the expense of other countries' industries, including those based within the U.S.

D. Using European Cultural Values to Change International Law

Despite its apparent political appeal, Europe's practice of erecting disguised technical trade barriers cast in the form of stringent precautionary principle-based EHS regulations and product standards, however, runs counter to both the letter and the spirit of at least three World Trade Organization Agreements.⁷⁸⁶ Such a practice has often resulted in unfair discrimination between otherwise identical or similar products based on political preferences for particular production processes. In other cases, it has resulted in the creation of unnecessary obstacles to international trade flows that could have been avoided had other available, less trade-restrictive, alternatives been utilized.⁷⁸⁷

The only WTO legal provision that has been interpreted as providing WTO Members with the right to apply a precautionary approach is Article 5.7 of the SPS Agreement, which covers technical regulations and product standards addressing *food safety* issues.⁷⁸⁸ It generally permits WTO Members to take precautionary measures only when they do not possess sufficient evidence after having conducted an objective science-based risk assessment. Even if a WTO Member is able to satisfy this requirement, it must be remembered that this right is, in any event, only a limited and provisional one that is subject to timely and repeated review taking into account updated science and changed factual circumstances.⁷⁸⁹

Well aware of the limited duration of such an exception and the difficulty of satisfying these tests, the EU Commission and precautionary principle advocates have devised a clever three-dimensional legal strategy to change WTO rules that entails exporting the precautionary principle around the world through various fora. In particular, the EU and its civil society allies have endeavored to inject the precautionary principle within the WTO system through creative interpretation of the SPS and TBT Agreements and through skilled participation in the international standards development process.⁷⁹⁰ They have also sought to incorporate the precautionary principle within multilateral environmental treaties that require ratifying parties to adopt and implement it through enactment of national legislation.⁷⁹¹ Furthermore, the EU has already begun to incorporate the precautionary principle into its bilateral and regional free trade, aid and 'capacity-building'/technical assistance agreements with developing countries in the form of technical product standards and regulatory infrastructure development.

This strategy accomplishes two goals. First, it ensures that the high costs and administrative burdens imposed by precautionary regulation are shared more or less equally among the commercial actors operating in the global markets. Second, it helps to establish the precautionary approach as a more formal precautionary principle (i.e., as a general norm of customary international law⁷⁹²) that transcends the WTO Agreements to guarantee “its adoption, implementation and diffusion” in other countries. At least one precautionary principle advocate has clearly stated Europe’s intentions concerning the second of these objectives: “The EU hopes that by integrating the precautionary principle into international treaties and multilateral agreements, *it will become the unchallenged standard by which governments oversee and regulate science and technology*” (emphasis added).⁷⁹³

In other words, by exporting the precautionary principle throughout the world in this manner, the EU can help to formulate new customary international law that many scholars argue would need to be considered during the course of a WTO dispute involving precaution-based health and environmental regulations and standards. However, whether a form of the precautionary principle that is broader than the limited scope of Article 5.7 of the SPS Agreement can be incorporated into the WTO Agreements during the course of a WTO dispute without institution of a formal WTO amendment process is not entirely clear.⁷⁹⁴

Customary international law generally consists of the regular practices and rules within and among different countries (‘States’) that those States follow. These practices and rules have traditionally been deemed to become rules of international law only after they satisfy two conditions. First, States must show that the domestic practice in which they engage within their national borders and the international practice they engage in with other States are consistent, as indicated by court decisions, legislation, international treaties in which they participate and diplomatic practice. Second, States must show that such practice is based on more than morality, habit or convenience – it must reflect governmental recognition of a legal obligation to act accordingly.⁷⁹⁵ Traditionally, the development of custom has been deemed to be a messy process that takes place gradually over a relatively extended period of time (e.g., 30-40 years).⁷⁹⁶

A growing number of legal scholars and human rights and environment advocates have argued, however, that this traditional notion of customary international law is no longer workable. Instead, they argue that, in today’s fast-paced and globally-connected Internet and media age custom can be formed ‘instantly’ through the making of widely approved international declarations evidencing what States ‘say’, such as U.N. resolutions (i.e., ‘soft law’), and through government ‘acts’ of signing *and* ratifying multilateral and bilateral treaties.⁷⁹⁷ While the theory of ‘instant custom’ is appealing, it lacks serious credibility, especially since individual countries often act in a manner that is contrary to what they say. Similarly, the different parties to a treaty could initially ratify a treaty and then subsequently implement it differently amongst themselves (i.e., engage in two contrary acts). Yet, it is entirely conceivable that binding customary international law can be created within a shorter period of time (e.g., 5-10 years). And this can occur as the result of consistent treaty party practice undertaken subsequent to the ratification of an international treaty⁷⁹⁸ by powerful, influential and like-minded Nation-States⁷⁹⁹, if not persistently counteracted (objected to) by other treaty parties. But, the degree to which such CIL can bind non-consenting nations is also subject to debate.⁸⁰⁰

What has become increasingly clear, however, is that EU efforts to change international law, unless countered, *will* impair U.S. economic competitiveness for the foreseeable future by discriminating against and/or unfairly burdening American industrial, agricultural and technological products, processes and activities and the very free enterprise system from which they derive. And, that Europe has subtly employed ‘soft’ (legal) rather than ‘hard’ (military) power to unilaterally impose an evolving precautionary principle on other nations including the U.S., to correct what it perceives as the failures and excesses of American-style globalization, should not make it any more acceptable to American businesses.

Anti-globalization is almost exclusively an anti-American phenomenon, even within the United States itself. In contrast, its antithesis — globalization — is just as much a European phenomenon. ***The strength of the European Union is that it is not a state. Europe does not have a single phone number, but a network of centers of power that are united by common policies and goals. This enables Europe to give its members access to the largest market in the world — but keep their national identity and control over the policies they care about the most — taxes, crime, health, education and pensions. Europe's structure as a club has allowed it to reverse the very idea of the balance of power.*** As its strength grows, its neighbors want to join it rather than balance it. The EU doesn't change countries by threatening to invade them. ***Its biggest threat is not intervention, but withdrawal of the hand of friendship and especially the prospect of membership.***

...***The EU's secret weapon is the law.*** Military power allows you to change the regime in Afghanistan or Iraq, but ***the EU is changing all of Polish society, from its economic policies to its property laws to its treatment of minorities. Each country that joins the EU must absorb 80,000 pages of new laws on everything from gay rights to food safety.*** Military power allows you to impose your will almost anywhere in the world, but when your back is turned, your potency wanes. But once drawn into the Eurosphere of law and institutions, countries are changed forever - and they never want to get out.

Through continued enlargement and the EU's new neighborhood policy, nearly a third of the world's population has come under the influence of a zone of peace, prosperity and democracy. But ***the European model has an impact beyond the Eurosphere — it is spreading around the world like a virus.*** Countries around the world are drawing inspiration from the European model and nurturing their own neighborhood clubs, from ASEAN and Mercosur to the African Union and the Arab League. Most dramatically, the Chinese are embracing multilateral institutions on a global level — and they are looking at how the European experience can be tapped to build an East Asian Community in their neighborhood”⁸⁰¹ (emphasis added).

Indeed, as international law Professor John O. McGinnis has observed, the establishment of evolving legal norms such as the precautionary principle as CIL is no longer solely within the control or discretion of Nation States. Unlike the situation surrounding international treaties, approval of and compliance with which is subject to democratic checks and balances, elitist, left-leaning, anti-market orientated law professors are increasingly assisting global civil society (NGO) activist efforts to develop a less transparent form of international law, namely CIL - and, the precautionary principle is only the most recent example.

[In contrast to treaties]...bureaucrats and judges, rather than officials accountable to voters, determine the content of customary international law...[And,] those responsible for determining the content of customary international law are in fact radically unrepresentative. Law professors – the modern publicists responsible for the development of customary international law – are predominantly from the developed rather than developing world...[E]ven within their own nations, law professors, like intellectuals generally, have distinctly unrepresentative views – very often to the left of the society as a whole. In the United States, for instance, Democratic-leaning law professors outnumber Republican-leaning law professors by about five to one. The combination of these two biases can be quite powerful. *Because academics come from countries that are already wealthy, they profit less*

*than from growth than the average global citizen, who may be more willing to take some risks to benefit his relatively low standard of living. Because academics lean to the left side of the political spectrum they are also less sympathetic to entrepreneurial ideas. Thus, modern customary international law rules are likely to have built-in biases against free markets and other classical liberal ideas. For instance, many scholars have tried to argue that customary international law contains something called **the precautionary principle**—a rule that prohibits the introduction of new technology unless all risks from the technology can be ruled out. This principle obviously would have more appeal to those who are already well off than to those for whom new technology may be life saving (emphasis added).*⁸⁰²

If the EU is able to establish the precautionary principle as a norm of customary international law, it raises the prospect that U.S. federal court jurisdiction may ultimately be invoked successfully under the provisions of the Alien Torts Claim Act ('ATCA')⁸⁰³ to hear claims brought by foreign nationals injured in their country. Such lawsuits would likely allege that a U.S. multinational company breached its duty of care – to be 'better safe than sorry' – when it failed to employ in advance adequate measures to prevent operations or products in a foreign country from causing uncertain but potentially significant future environmental or health-related harm.⁸⁰⁴ In light of the U.S. Supreme Court's recent ruling in *Sosa v. Alvarez-Machain*,⁸⁰⁵ this should no longer be considered a remote possibility.⁸⁰⁶

The ability of the EU to establish the precautionary principle as customary international law so that it binds U.S. regulators and American industry, even though the U.S. has chosen not to ratify precaution-based environmental treaties, should be of serious concern to *every* American business, large or small. According to many legal scholars, the U.S. Constitution already views treaty law as equivalent in importance to a federal statute; thus, U.S. ratification of an environmental treaty and adoption of implementing federal legislation would act to supercede a prior inconsistent federal statute. More troublesome, however, is the prospect that customary international law could be construed by the U.S. Supreme Court, and thus by lower federal courts, as equivalent to federal common law, as an increasing number of legal scholars believe it should be.⁸⁰⁷

XII. CONCLUSION

It is critical that U.S. business of all sizes, especially small and medium-sized businesses organize amongst themselves and speak out against EU and activist efforts to export their precautionary principle-based regulatory and product standards model to the U.S. and other countries (e.g., China) where U.S. companies do business. Small U.S. exporters, as 'downstream' users of primary substances or products manufactured by multinational companies, will be directly impacted if those substances or products are themselves banned or severely restricted within the EU where they are sold or within China where they are produced. Although U.S. small business importers and manufacturers that do not export will not be directly affected by such rules, they are likely to be held indirectly responsible for satisfying them *as suppliers* to large U.S. retailers or U.S. domiciled, foreign-based multinationals with distribution channels extending outside the United States. Similarly, U.S.-based services companies operating in the personal services, financial services, construction and real estate development, and waste disposal industries are likely to be impacted by the precautionary principle if it is adopted and incorporated by American state legislatures and municipalities into state and local laws.

Unfortunately, given the increasingly global and interconnected communications environment in which *all* companies now operate, the business activities of large multinationals and their suppliers are exposed more than ever before⁸⁰⁸, and often subject to continuous negative environmental NGO public relations campaigns. Since prolonged public disparagement

campaigns can damage a business' reputation, consumer and wholesale brand recognition, and perhaps even shareholder value, many multinationals have been reluctant to resist environmental NGO campaigns, though they may yet challenge EU Commission precautionary principle-based regulations through government back-channels. Consequently, the interests of their small and medium-sized U.S. suppliers often remain at risk. While many U.S. small and medium-sized enterprises serve as critical links along the global product supply chains, they individually lack the financial, technical and human resources to satisfy or otherwise address such precaution-based measures.

Notwithstanding these limitations, U.S. SMEs, after all, form the backbone of the U.S. economy, and therefore, *can* and *ought* to make a difference. They can and should directly help to prevent the precautionary principle from evolving into U.S. law by working alongside U.S. multinationals to counter Euro-style initiatives introduced by ENGOs at the state and local levels. In addition, they can and should, individually and collectively, lobby their state and federal representatives and the current Administration to counter and reject any federal or regional level precaution-based proposals (e.g., RGGI) that could potentially snowball, especially if they may indirectly involve foreign governments or industries.

Furthermore, U.S. SMEs can and should work collaboratively with multinationals and the current Administration to prevent the precautionary principle from becoming an international legal standard and a norm of customary international law. This will likely entail the initiation of multiple dispute settlement proceedings at the WTO to challenge a growing number of illegal EU precautionary principle-based regulations and directives. In addition, it will require greater coordination with and support of the current Administration to counter EU precaution-based regulatory proposals made at the various U.N. agencies focusing on sustainable development issues, as well as, at the several intergovernmental technical bodies at which WTO-relevant standards are developed. And, it will necessitate more extensive and coordinated industry and government participation in the international standards development process at the ISO. All of these activities will serve to defend the current GATT/WTO benchmarks of scientific, technical and economic justification, transparency and inclusiveness and global relevance, nondiscrimination, and no unnecessary obstacles to trade which the U.S. government and American industry have spent the past fifty or more years developing through litigation and negotiation.

Moreover, at another level, U.S. SMEs *and* multinationals can and should seek out free-market, pro-industry, free trade and science-based universities, think-tanks, and educational/advocacy groups, including the Institute for Trade, Standards and Sustainable Development (ITSSD), that can help to effectively 'push-back' against ENGO legal challenges, soft law initiatives and public campaigns that support the precautionary principle. This can be done at public international and intergovernmental fora, and within the courts. Unfortunately, businesses have often failed to consider the long-term legal and economic implications of their short-term quarterly profit-based decisions and have, more often than not, acted reflexively – i.e., they have surrendered to ENGO disparagement campaigns and 'soft' law demands without much of a fight. While this may entitle companies to temporarily escape the public scrutiny of socialist and accountability-minded Euro-style activists and possibly even avoid their filing of hostile shareholder resolutions at the next annual meeting, it is not likely to preserve longer term strategic corporate economic and financial interests, which include the preservation and defense of objective and transparent regulatory, legal and accounting standards. Indeed, it is likely to cause them even more legal and financial problems in the future.

In sum, the U.S. business community as a whole should not fail to explore *all* conceivable and available options, opportunities and vehicles that could potentially help it to extinguish the complex challenge posed by the precautionary principle. At this juncture, it is not an overstatement to say that the stakes are enormous. America's very enterprise system, individual freedoms and

international interests – its core political and economic values -- are hanging in the balance. Transatlantic regulatory and parliamentary dialogues, diplomatic confidence-building initiatives, and EU integration and constitution empathies aside, we must immediately come together *as Americans* and collaborate in order to halt Europe's misguided global regulatory juggernaut before it is too late!

Endnotes

¹Brandon Mitchener, “Rules, Regulations of Global Economy Are Increasingly Being Set in Brussels,” WALL ST. J., Apr. 23, 2003.

² The reference to the term ‘regulation’ also includes what is referred to in Europe as a ‘directive’. Technically speaking, however, there is a difference between a regulation and a directive. Regulations are issued and implemented directly by the European Commission. Directives are issued by the Commission and directly implemented by EU Member States.

³ In recent years, “the growth in the number of European standards has been considerable. [As of February 2004,] CEN [the European Committee for Standardization, which is responsible for standards in areas other than electrotechnical and telecommunications fields,] offers some 7,000 standards in a vast range of sectors. In the electrotechnical field, there are some 3,300 European standards from CENELEC [The European Committee for Electrotechnical Standardization]...In the telecommunications area, ETSI [The European Telecommunications Standards Institute] offers about 3,200 standardization documents. Some 1,200 European Standards are published every year by these organizations. In 2003, approximately 13,500 European standards existed...In support of the EC’s New Approach directives for certain product areas, 2,165 harmonized standards have become voluntary solutions to demonstrate compliance with legal requirements.” COM (2004) 130 final, “Communication from the Commission to the Council, the European Parliament and the European Economic and Social Committee – Integration of Environmental Aspects into European Standardization”, Feb. 25, 2004), at 7-8.

⁴ This reflects an estimated U.S. Dollar/Euro exchange rate of \$1.50 to 1 Euro.

⁵ See “Enhancing the Implementation of the New Approach Directives, Communication from the Commission to the Council and the European Parliament”, COM (2003) 240 final, May 7, 2003, at 3, at (http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0240en01.pdf).

⁶ For example, the chemicals industry supplies a number of downstream manufacturing sectors, including textiles and clothing; leathers; agricultural pesticides, biocides, herbicides and fertilizers; metals; mechanical and electrical goods; office machines; industrial machinery; metal products; construction; automotive; paper; paints, varnishes and enamels.

⁷ The White House office charged with the responsibility of employing economic cost-benefit analysis when reviewing regulatory proposals is the Office of Management and Budget (OMB), Office of Information and Regulatory Affairs (OIRA).

⁸ See Lawrence A. Kogan, “The Precautionary Principle and WTO Law: Divergent Views Toward the Role of Science in Assessing and Managing Risk”, SETON HALL JOURNAL OF DIPLOMACY AND INTERNATIONAL RELATIONS (Winter/Spring 2004), at p. 88 and FN#79, at:

(<http://diplomacy.shu.edu/journal/new/pdf/VolVNo1/6%20-%20Kogan.pdf>), See also, Theofanis Christoforou, “The Precautionary Principle in European Community Law and Science”, Chap. 16, Joel A. Tickner, ed., in *Precaution: Environmental Science and Preventive Public Policy*, at 249.

⁹ *Id.* at 249, cited in “The Precautionary Principle and WTO Law: Divergent Views Toward the Role of Science in Assessing and Managing Risk”, at 88, fn 81.

¹⁰ Until recently, European anti-biotech and animal rights extremist groups had successfully and virtually without penalty employed fear campaigns aimed at causing ‘economic sabotage’ to the biotech and pharmaceutical industries. However, this may change in the future considering the recent decision by a Danish court to fine Greenpeace 30,000 kroner (4,900 dollars, 4,000 euros) under a new Danish anti-terror law. See: Lawrence A. Kogan, “Economic Sabotage: A Form of Free Speech?”, Rural News, New Zealand (6/28/05), at: (<http://www.ruralnews.co.nz/article.asp?channelid=140&articleid=9036>); Lawrence A. Kogan, ““In the UK ‘Economic Sabotage’ is Still a Form of Free Speech”, AgBioWorld (6/15/05), at: (http://www.agbioworld.org/newsletter_wm/index.php?caseid=archive&newsid=2380). See, also: “Greenpeace Fined 4,000 Euros Under New Danish Terror Law”, Agence France Presse (6/10/05), at: (<http://p102.news.scd.yahoo.com/s/afp/denmarkjustice>).

¹¹ See Lawrence A. Kogan, “Exporting Europe’s Protectionism”, THE NATIONAL INTEREST, at 91-99.

¹² See Jeremy Rifkin, “A Precautionary Tale”, THE GUARDIAN (May 12, 2004), at: (<http://www.guardian.co.uk/analysis/story/0,3604,1214638,00.html>); Cf. Peter L. Bernstein, “Against the Gods – The Remarkable Story of Risk”, John Wiley & Sons Pub. (1996, 1998 ©)

¹³ See Rachel Thompson, “Transatlantic Business in an Era of Crisis and Change”, APCO (2003), cited in “Exporting Europe’s Protectionism”, THE NATIONAL INTEREST, at 94. Ms. Thompson argues that Europe’s resort to the precautionary principle reflects a deeper aversion to risk that is likely attributable to ‘sharp

demographic differences' with the United States. "European electorates are aging much faster than America's making Europeans more risk averse".

¹⁴ *Supra* note 8 at 89.

¹⁵ See Lawrence A. Kogan, "Exporting Europe's Protectionism"; Robert Nilsson, *Misguided Precaution – Chemicals Control and the Precautionary Principle in Sweden* (2000). Dr. Nilsson's comments were discussed by this author in prior works. See: Lawrence A. Kogan, "Looking Behind the Curtain": The Growth of Trade Barriers That Ignore Sound Science", National Foreign Trade Council (May 2003), at pp. 102-104, at: (<http://www.nftc.org/default/white%20paper/TR2%20final.pdf>); Lawrence A. Kogan, "Unscientific 'Precaution': Europe's Campaign to Erect New Foreign Trade Barriers", Washington Legal Foundation WORKING PAPER Series No. 118 (Sept. 2003), at 19-26, at: (<http://www.wlf.org/upload/kogan.pdf>); Lawrence A. Kogan, "EU Regulation, Standardization and the Precautionary Principle: The Art of Crafting a Three Dimensional Trade Strategy that Ignores Sound Science", National Foreign Trade Council (Aug. 2003), at: (<http://www.nftc.org/default/white%20paper/WLFFinaldocumentIII.pdf>). See, also Bjorn Lomborg, *The Skeptical Environmentalist*, Cambridge University Press (© 2001), at: (<http://www.lomborg.com/books.htm>). This author describes how Dr. Lomborg, a political economist and associate professor of statistics in the Department of Political Science at the University of Aarhus, Copenhagen, Denmark, was systematically vilified by European academics and scientific environmentalists with whom he dared to disagree. See "Looking Behind the Curtain": The Growth of Trade Barriers That Ignore Sound Science", at fn 460, at p. 103.

¹⁶ See Lawrence A. Kogan, "Unscientific 'Precaution': Europe's Campaign to Erect New Foreign Trade Barriers" at 19-26.; Lawrence A. Kogan, "EU Regulation, Standardization and the Precautionary Principle: The Art of Crafting a Three Dimensional Trade Strategy that Ignores Sound Science".

¹⁷ See Lawrence A. Kogan, "Unscientific 'Precaution,'" *supra*, at 37, fn 107.

¹⁸ These include the Sanitary and Phytosanitary ('SPS') Agreement, and the Technical Barriers to Trade ('TBT') Agreement. These agreements expressly reference as relevant international standards bodies, the Codex Alimentarius Commission (Codex - food safety – administers IPPC), the International Office of Epizootics (OIE - animal health and diseases communicable from animals to humans), the Secretariat of the International Plant Protection Convention (IPPC - plants and plant products), the International Organization for Standardization (ISO – technical and social products and services); the International Electrotechnical Commission (IEC – electrical and electronic equipment). The American National Standards Institute (ANSI) is "the dues paying member and sole U.S. representative of the two major non-treaty international standards organizations, the... (ISO) and the... IEC), via the U.S. National Committee (USNC)... The institute provides the means for the U.S. to influence global standardization activities and the development of international standards." See "ANSI – An Historical Overview", at: (http://www.ansi.org/about_ansi/introduction/history.aspx?menuid=1).

¹⁹ See Lawrence A. Kogan, "Written Testimony Submitted to House Science Committee, Subcommittee on Environment, Technology, and Standards, 'Europe, China and the Use of Standards as Trade Barriers How Should the U.S. Respond?'" for the Institute for Trade, Standards and Sustainable Development, Inc. (6/3/05), at: (<http://www.itssd.org/Correspondences/LKogan-ITSSDtestimony-6-3-05-HouseScienceComm.pdf>); Lawrence A. Kogan, "ITSSD Comments on the American National Standards Institute's (ANSI's) Draft Revision to the United States Standards Strategy (USSS), for the Institute for Trade, Standards and Sustainable Development, Inc. (4/18/05), at: (<http://www.itssd.org/Correspondences/ansi%20five%20year%20review%20comments.pdf>).

²⁰ See Lawrence A. Kogan, "Unscientific 'Precaution'" *supra* note 14 at 37-38

²¹ See Wolfgang Clement, *German Standardization Strategy, Standardization in Germany Helps Business and Society Strengthen, Develop and Open Up Regional and Global Markets*, "Opening Statement", at p. 4, at: (http://www2.din.de/sixcms_upload/media/1345/DNS_english%5B1%5D.pdf).

²² They include the U.N. Food and Agriculture Organization (FAO – food safety) (the World Health Organization (WHO – health and environment), United Nations Environment Program (UNEP – secretariat for multinational environmental treaties and home of the Commission on Sustainable Development), International Labor Organization (ILO – worker health and international labor rights treaties). It also includes subsidiary bodies and combinations thereof, such as the Intergovernmental Forum on Chemical Safety (IFCS – administered by the WHO), the Joint Expert Committee on Food Additives (JECFA – FAO/WHO), the Joint Meeting on Pesticides Residues (JMPR – FAO/WHO) and the International Program for Chemical Safety (IPCS – WHO/UNEP/ILO), and the Strategic Approach to International Chemicals Management (SAICM – UNEP). The OECD maintains the international high production volume (HPV) database which identifies and tracks all HPV chemicals (> 1,000 tons per annum) and reports the results of

HPV chemical risk assessments undertaken. It also operates an existing chemicals program one of the functions of which is to conduct 'scientific' hazard assessments of chemicals, pursuant to a relatively restricted set of data elements (the 'Screening Information Data Set (SIDS)) for the express purpose of identifying potential 'chemicals of concern'.

²³ See Lawrence A. Kogan, "Exporting Europe's Protectionism," *THE NATIONAL INTEREST*, No. 77 (Fall 2004), at 96-97.

²⁴ "The role of science in government assessment and management of public risks has increasingly become the subject of a heated transatlantic political debate that is likely rooted, in part, in the "deepening global economic integration" and the continuing expansion and ascendancy of the EU on the world economic stage. See Lawrence A. Kogan, "The Precautionary Principle and WTO Law: Divergent Views Toward the Role of Science in Assessing and Managing Risk", *SETON HALL JOURNAL OF DIPLOMACY AND INTERNATIONAL RELATIONS*, *supra* at 77; Bruce Stokes, "New Trade Barriers: National Preferences", *NATIONAL JOURNAL*, (Apr. 24, 2004).

²⁵ "Unscientific 'Precaution'" *supra* note 14.

²⁶ The EU began the process of technically lifting the moratorium on May 19, 2004, when it allowed onto the EU market a single modified strain of sweet corn grown mainly in the U.S. See "The Precautionary Principle and WTO Law: Divergent Views Toward the Role of Science in Assessing and Managing Risk", *supra* at 98, fn 171; Lawrence A. Kogan, "Looking Behind the Curtain: The Growth of Trade Barriers that Ignore Sound Science", at 19-22 and 32-33.

²⁷ See "Looking Behind the Curtain", *supra* at 25-31 and 35-42.

²⁸ The Cartagena Protocol on Biosafety, which covers the broader category of 'living modified organisms' ('LMOs'), recently entered into force during September 2003. While the U.S. is not a party to the Protocol, it is a party to the United Nations Convention on Biological Diversity, which the Protocol is intended to implement. For a discussion about the EU's interpretation of the Protocol and its potentially negative impact on U.S. trade, see "Looking Behind the Curtain," *supra* note 22 at 44-51.

²⁹ There have, however, been several mishaps within the U.S. involving the *handling* of GM seeds and plants (e.g., the Monsanto, Starlink-Aventis and Prodigene cases). However, they have had nothing to do with the *application of the technology* itself. See "Looking Behind the Curtain", *supra* note 22, at 34-35, fn 146.

³⁰ See "The Precautionary Principle and WTO Law," *supra* note 22, at 99.

³¹ "Unscientific 'Precaution'" *supra* note 14, at 14-16; "Exporting Europe's Protectionism," *supra* note 19, at 95.

³² See "Looking Behind the Curtain", *supra* note 22, at 82-104.

³³ See Lawrence Kogan, "Claims of Improper U.S. Lobbying Quite a REACH", 18 *EU REPORTER*, Plenary Edition 03-07 (May 2004), at: (<http://www.eureporter.co.uk>). In other words, it is widely believed that the EU seeks to incorporate the principle underlying the REACH regime (i.e., the precautionary principle) within a new international chemical management treaty.

³⁴ See "Looking Behind the Curtain," *supra* note 22 at 109-110, fn. 495. Indeed, at least one scientific organization argues that high dosage rodent testing (animal studies) is (are) useful to identify the risks posed to human by potential chemical carcinogens, but cannot be relied upon to fully inform public decision-makers and the public about potential cancer risks. "The flaw lies not with the studies...[but rather with]...how the study results are interpreted and used...Problems with the use of these studies cast doubt on the scientific credibility of risk assessments and help to distort perceptions among the public as to which risks matter most." See Preface, *America's War on 'Carcinogens': Reassessing the Use of Animal Tests to Predict Human Cancer Risk*, American Council on Science and Health © 2005.

³⁵ According to UK trade and industry secretary Patricia Hewitt, "the single biggest threat to [the British] position as number two in the world on biotechnology is the threat of *animal rights extremists, animal rights terrorists*"(emphasis added). And, a spokesman for the Association of the British Pharmaceutical Industry (ABPI) has remarked how extremist campaigns were having an increasingly negative impact on R&D investment in the UK and thereby ruining the industry. "[T]he UK is perceived as having one of the worst records for attacks by extremists. High profile campaigns of intimidation against anyone associated with animal testing have affected academic research, as well as the development of drugs." This has prompted the UK to propose a new criminal offense to protect against '*economic sabotage*'. See "UK Plans New Law to Rein in Animal Rights Protesters," *FINANCIAL TIMES*, Nov. 18, 2004. In a recent January 2005 update of that report, the *Financial Times* noted further how these activities have served to deter pharmaceutical companies from engaging in animal research by forcing "[i]ncreasing numbers of suppliers to drop their business with [such] companies..." According to ABPI figures, "there were 42 such 'capitulations' in the past quarter of 2004, more than two-thirds of the year's total of 113. More than 100 abusive or threatening phone calls and other communications were made to companies engaged in animal research last year, almost three times the 38 for 2003... There were 177 cases of damage to company, personal and private property in 2004, up from

146 the previous year.” See “Law Targets Animal Rights Militants”, FINANCIAL TIMES, Jan. 20, 2005. A prior report appearing in the UK *Daily Mail* further corroborated this trend.

³⁶ See “Looking Behind the Curtain”, *supra* note 22, at 107-108.

³⁷ *Id.*, at 110-111.

³⁸ *Id.*, at 114. This directive defines the hazardous category of ‘biocides’ as that which includes an “active substance or a preparation containing at least one active substance, intended to destroy, deter, render harmless, prevent the action of or to exert some controlling effect on harmful or unwanted organisms by chemical or biological means.” See Directive 98/8/EC, Article 1(d).

³⁹ *Id.* It defines ‘active substance’ as “a substance of micro-organism including viruses or a fungus having general or specific action on or against harmful organisms”. Directive 98/8/EC, Article 2 (1)(a). 98/8/EC.

⁴⁰ *Id.*, at 115-116.

⁴¹ Mike Freemantle and Bryan Backhouse, “Global Implications of the European Biocidal Products Directive” (2001), at 4, at: (<http://ecb.jrc.it/biocides>).

⁴² See “Looking Behind the Curtain”, *supra* note 22, at 116-117.

⁴³ The WEEE Directive, for example, requires ‘producers’ to bear the costs of collection, treatment, recovery and disposal of waste from *all new* electrical and electronic equipment (i.e., products sold *after* September 1, 2005) from the designated collection point onwards. As concerns ‘historical waste’ (products sold *before* September 2005), who bears the costs depends on whether the ‘users’ of the products are private households or other businesses. In the case of private household users, the cost of this service can be passed onto consumers if separately stated on the price tag. In the case of business users, it is expected that producers and business users will conclude cost-sharing agreements. See 2002/95/EC of the European Parliament of the Council (1/27/03). See also “End-of-Life Domestic Electrical Equipment: Europe Sets Major Challenge for Domestic Appliance Industry – CECED Urges Prudent Implementation of Electro-scrap Rules”, CECED Press Release (Dec. 18, 2002), at 1-4. And, the End-of-Life Vehicle Directive requires that the regulatory and financial burden of collecting end-of-life vehicles from consumers almost entirely upon manufacturers and importers. See Directive 2000/53/EC on End-of-Life Vehicles of the European Parliament and of the Council (Sept. 2000), as amended by 2002/525/EC (June 27, 2002), at Preamble par. 7 and Article 5(4). In addition, the regulatory and financial burdens of meeting annual reuse and recovery/recycling targets and information reports imposed by the directive are to be borne by all ‘economic operators’ collectively. 2002/53/EC at Articles 7(2) and 9.

⁴⁴ See “Green Paper on Integrated Product Policy, COM (2001) 68, final (2/7/01) (‘Green Paper’), discussed in “Looking Behind the Curtain: The Growth of Trade Barriers that Ignore Sound Science”, at 79-82.

⁴⁵ See “Integrated Product Policy, Building on Environmental Life-Cycle Thinking, Communication from the Commission to the Council and the European Parliament”, COM (2003) 302, final (6/18/03), at: (http://europa.eu.int/eur-lex/en/com/cnc/2003/com2003_0302en01.pdf).

⁴⁶ See “Looking Behind the Curtain”, *supra* note 22, at 73-78.

⁴⁷ *Id.*, at 78-79.

⁴⁸ *Id.*, at 65-68.

⁴⁹ *Id.*, at 68-73.

⁵⁰ The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (‘The Basel Convention’) was signed in 1989 under the auspices of the United Nations Environment Program (‘UNEP’) and went into force in 1992. It was arguably the first broad-based multilateral environmental agreement (‘MEA’) to impose global environmental standards for trade. For a discussion of how EU waste and disposal regulations implementing the Basel Convention adversely impact developing countries, See Lawrence A. Kogan, “‘Enlightened’ Environmentalism or Disguised Protectionism? Assessing the Impact of EU Precaution-Based Standards on Developing Countries”, National Foreign Trade Council (April 2004), at 40-64, at: ([http://www.nftc.org/default/white%20paper/riskreg3study404\(2\)Final.doc](http://www.nftc.org/default/white%20paper/riskreg3study404(2)Final.doc)).

⁵¹ “Showing specific causation in the climate change context could be particularly difficult. First, climate change’s effects involve shifts in climatic activity...Second...the natural phenomena affected by climate change are subject to natural fluctuations in frequency and severity. The chaotic system underlying climatic effects makes it quite difficult to differentiate a particular pattern change in temperature or sea level caused by anthropogenic climate change from one caused by natural variability.” See David A. Grossman, “Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation”, 28 COL. J. ENV. L. 1 (2003), at 24.

⁵² “In a new study conducted with colleagues at Lawrence Livermore National Laboratory’s Program for Climate Model Diagnosis and Intercomparison (MCM2.3.2), Tim Barnett and David Pierce of Scripps Institution used a combination of computer models and real-world ‘observed’ data to capture signals of the penetration of greenhouse gas-influenced warming in the oceans. The authors make the case that their

results clearly indicate that the warming is produced anthropogenically, or by human activities.” See “Scripps Researchers Find Clear Evidence of Human-Produced Warming in World’s Oceans – Climate Warming Likely to Impact Water Resources in Regions Around the World”, Scripps Institution of Oceanography, the University of California, San Diego, February 17, 2005, at: (http://scrippsnews.ucsd.edu/article_detail.cfm?article_num=666).

⁵³ According to Stuart Eisenstat, who previously served as Chief Domestic Policy Adviser to former President Carter and in several high profile positions under former President Clinton, *NGO s exerted an undue and destructive influence during the negotiations leading to the signing of the Kyoto Protocol*. “While these [NGO] groups did not sit at the negotiating table, there is no question that *through their lobbying efforts and their constant demands for steeper emissions cuts in carbon dioxide (CO₂)*, they were able to exert a substantial impact on the course of the negotiations. As environmental advocates, they pressed for unrealistically large reductions in greenhouse gas emissions without consideration of the economic costs. They also helped stiffen the position of developing nations against taking any obligations to reduce even the rate of growth of their emissions, notwithstanding the fact that these same nations will be the biggest emitters of CO₂ by the mid-twenty-first century. *This stance ultimately undermined support in the United States for eventually ratifying the Kyoto Protocol* (emphasis added).” Stuart E. Eisenstat, “Non-governmental Organizations as the Fifth Estate”, SETON HALL JOURNAL OF DIPLOMACY AND INTERNATIONAL RELATIONS, (Summer/Fall 2004), at 17.

⁵⁴ At least one scholar has noted the fallibility of computer models prognosticating the extent of future climate change arising from projected increases in GHG emissions. These models have been prepared by the Intergovernmental Panel on Climate Change (‘IPCC’), the body appointed by the World Meteorological Organization (WMO) and the United Nations Environment Program (UNEP) to assess the ‘scientific’ basis of human-induced climate change. According to this scholar, these models, which are heavily relied upon by the EU heavily for its ‘science climate change policy, are seriously flawed. See Alan Oxley and Steven MacMillan, “The Kyoto Protocol and the APEC Economies”, A report prepared for the Australian APEC Study Centre, Monash University, Melbourne, Australia (Nov. 2004), at 5, fn 1.

⁵⁵ See Denis Dutton and Wolfgang Kasper, “Green Protectionism”, POLICY, The Centre for Independent Studies, at 23-25 (Summer 2002-2003).

⁵⁶ “Building Institutions for a Better Environment”, Economic Report of the President – 2002, Chapter 6, at 245, at: (http://www.gpoaccess.gov/usbudget/fy03/pdf/2002_erp.pdf).

⁵⁷ *Id.*, at 245-247.

⁵⁸ The Kyoto Protocol was created to implement the United Nations Framework Convention on Climate Change. While the U.S. signed the Kyoto Protocol, neither the Clinton nor Bush Administrations ever ratified it. These administrations reasoned that: 1) the protocol failed to subject developing countries to any of the emissions reduction requirements imposed on industrialized nations; and that 2) its adoption by the U.S. would result in serious harm to the U.S. economy. Their failure to submit the Kyoto Protocol to the U.S. Senate for ratification was largely due to the unequivocal action taken against U.S. ratification of the Kyoto Protocol by the U.S. Senate in 1997. On July 25, 1997, Senators Byrd and Hagel, along with 64 co-sponsors, introduced to the full Senate a non-binding but politically influential Byrd-Hagel Resolution (S. 98) against ratification of the Kyoto Protocol that was *passed by a Senate vote of 95-0*, premised on these two rationales. This resolution appeared within S. 1132 and was later adopted by the House in H.R. 4761.

⁵⁹ “A recent study by the ALEC [American Legislative Exchange Council] on proposals to cap greenhouse gas emissions in the [N]ortheastern [S]tates *estimates a rise in electricity prices of 23-39%, and gas prices 44-62% by 2020*. Job losses would be substantial: under different scenarios the northeastern states could lose anywhere from 98,000-218,000 jobs by 2020. Another study by the Heartland Institute estimated that state-level programs would be 10 times as expensive as a federal program and cost each state an average of \$10,000 per household” (emphasis added). See Sons of Kyoto: Greenhouse Gas Legislation in the States Updated: Sept. 27, 2004”, at: (<http://www.alec.org/viewpage.cfm?pgname=5.1046>). The earlier study concluded that, “Achieving Kyoto’s goals would devastate families and businesses. Consumers and businesses in a typical state would have to bear a staggering \$21.8 billion annual burden. A state greenhouse gas program could cost the average household \$9,955 a year. The average state greenhouse gas program would cost the average household nearly one-third of its disposable income, nine times what it now spends on gasoline and motor oil, and nine times what it spends on food. Senior citizens, the poor, and businesses that face foreign competition would be especially hard hit by higher energy costs.” See Joseph L. Bast, James M. Taylor and Jay Lehr, “State Greenhouse Gas Programs: An Economic and Scientific Analysis”, Heartland Policy Study #101, The Heartland Institute (Feb. 2003), at: (<http://www.heartland.org/ppt/12058.ppt>)

⁶⁰ “The costs of Kyoto to Europe are still not clear. They might range from –1.8 percent GDP in the UK to –4.8 percent GDP in Spain yearly by 2025. *That means that European people would be much poorer 20 years*

from now because of the emission cuts. That also means that hundred[s] [of] thousands [of] jobs would be lost yearly in Europe as a consequence of [the] EU 's stubbornness in pursuing a policy whose only 'merit', if you want to call it that, ... is to give the Old Continent [a] high profile in international politics" (emphasis added). Carlo Stagnaro, "Kyoto: A High Price to Pay", Edition 11-22 (Oct. 2004), at 7, at: (http://www.eureporter.co.uk/images/LR_EUR_11Oct04.pdf).

⁶¹ *Id.*

⁶² "Building Institutions for a Better Environment", Economic Report of the President – 2002, Chapter 6, at 247.

⁶³ Marc Morano, "Greens Concede Kyoto Will Not Impact 'Global Warming'", CNS News (12/17/04) at: (<http://www.cnsnews.com/ViewSpecialReports.asp?Page=/SpecialReports/archive/200412/SPE20041217a.html>). "[The Protocol] is important in the *political* message and the inspiration it is giving people around the world. People can say 'yeah, our politicians do care – they are not just interested in power and their own greed and in their own money. They do care about the future of the planet'" (emphasis added). *Id.*, quoting Peter Roderick of Friends of the Earth.

⁶⁴ According to the EU Commission, the "Directive on emissions trading is currently the most prominent climate change action for the Community. Emission[s] trading can minimise the costs of compliance with the Kyoto Protocol" to the United Nations Framework Convention on Climate Change. *See* ??????????

⁶⁵ *See* Directive 2003/87/EC, OJ L 275/32 (10/13/03), "Of the European Parliament and Of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC", Annex I.

⁶⁶ 2003/87/EC, Articles 3-6.

⁶⁷ Article 16 provides EU Member States with the ability to determine and impose penalties for exceeding emissions allowances.

⁶⁸ *See* "Emission trading – The Price of Carbon Emissions", FINANCIAL TIMES Editorial Comment, (Dec. 27, 2004).

⁶⁹ *See* COM(2004) 500 final (7/7/04), "Commission Decision of 1/29/04, establishing guidelines for the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council"; Commission Regulation of 12/21/04, for a standardized and secured system of registries pursuant to Directive 2003/87/EC of the European Parliament and of the Council.

⁷⁰ *See* "Emission Pact Goes Forward, But Tougher Work of Cutting Greenhouse Gases Under Kyoto Protocol Remains", CHRISTIAN SCIENCE MONITOR, October 7, 2004, at: (<http://www.csmonitor.com/2004/1007/p11s01-wogi.html>).

⁷¹ "Setting out the evidence for global warming, Mr. Blair said that while the issue was 'still disputed', *global leaders had a responsibility to act on the majority view* that it posed a real threat. He said advocates of action had to show that this would not come at an unacceptable economic cost. Yet equally, 'business and the global economy need to know that this is not an issue that is going to go away', Mr. Blair said" (emphasis added). Krishna Guha, John Thornbill and Raymond Colitt, "Blair Calls for Unity in Face of World Challenges", FINANCIAL TIMES, Jan. 27, 2005.

⁷² Coincidentally, the United Nations 'High Level Panel on Threats' appointed by Secretary-General Kofi Annan recently released a report entitled "A More Secure World – Our Shared Responsibility". The general conclusion of this report, which is intended as an instrument of U.N. reform, is that there are many inter-linked threats to collective global security that must be addressed by all nations (e.g., the U.S.), and that climate change should be included among the highest category of threats. *See* "A More Secure World: Our Shared Responsibility", Report of the Secretary-General's High-level Panel on Threats, Challenges and Change, 'Collective Security and the Challenge of Prevention', at paragraphs, 22, 52-59, 71-72, 248 and 260.

⁷³ By controlling the market authorization process and by directly influencing consumer choice and expectations, and hence, the dynamics underlying a product's *market penetration*, the EU Commission and environmentalist groups are essentially 'making' the market rather than permitting market forces to take shape on their own.

⁷⁴ *See* Peter Goldsmith, Hamish Gow and Nesve Turan, "Is it Safe? Post-Market Surveillance versus Ex-ante Signalling", Paper presented at the 13th Annual World Food and Agribusiness Symposium (2003), at pp. 8-10, at: (<http://www.ifama.org/Conferences/2003/Conference/papers/Goldsmith.pdf>). These authors believe that indirect government branding is necessary because "individual [US] firms would and can skirt the full power of the law...on constitutional grounds." However, they also believe that branding alone is unable "to effectively insure against large and unforeseen damages, especially non-trivial harm revealed in the future."

⁷⁵ *See* "Looking Behind the Curtain", *supra* note 22, at 39-41, 75, 77, 80-81, 92-93, 107-109, 117.

⁷⁶ "Such statements are supported by the very small market shares of labeled furniture in the EU...Quite a few actors claim that the market share of labeled furniture will be extremely small. Average estimates range

from about 5% to 16% in the respective market segments. The feeling of shrinking public and private awareness on ecological issues is widespread, even among some of the pioneering firms.” Jurgen Barsch, E. Deliege and P.W.J. Luiten, “The Feasibility of an EU Eco-Label for Furniture,” at 33 and 35.

⁷⁷ *Id.*, at 34-35.

⁷⁸ *Id.*, at 36. According to the report’s findings, “Consumption patterns are closely connected with incomes. In some markets more ‘intangible’ benefits like ecological values become more dominant in phases of growing prosperity. *‘With the end of the economic crisis and the return to higher employment, we can expect a change in consumers’ attitudes when they purchase goods, e.g., fitness for use linked to ethical values’* (emphasis in original). *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*, at 34-35.

⁸¹ *Id.*, at p. 35.

⁸² Timothy Riordan, “The Precaution Principle in Environmental Management”, *Industrial Metabolism: Restructuring for Sustainable Development*, Appendix Part 3: ‘Further Implications’”, Editors Robert U. Ayres and Udo E. Simonis, United Nations University Press© The United Nations University (1994), at 8, <http://www.unu.edu/unupress/unupbooks/80841e/80841E0o.htm#12.%20The%20precaution%20principle>.

⁸³ *Id.*

⁸⁴ “The Precautionary Principle and WTO Law: Divergent Views Toward the Role of Science in Assessing and Managing Risk”, at 89.

⁸⁵ See Directive 2004/35/CE (April 21, 2004), of the European Parliament and of the Council On Environmental Liability With Regard to the Prevention and Remedying of Environmental Damage”, O.J. L143/56, Apr. 30, 2004, at: http://europa.eu.int/eur-lex/pri/en/oj/dat/2004/l_143/l_14320040430en00560075.pdf. Fault-based liability (negligence) would be limited to what is referred to as ‘non-dangerous activities’.

⁸⁶ See “EU Commission White Paper on Environmental Liability COM (2000) 66 final (2/9/2000), at: http://europa.eu.int/eur-lex/en/com/wpr/2000/com2000_0066en01.pdf), at 5.

⁸⁷ “Tort Law Application – Directive 2004/35/CE of the European Parliament and of the Council on environmental liability with regard to the prevention and remedying of environmental damage”, at 2

⁸⁸ The directive’s purpose is “to establish a framework of environmental liability based on the ‘polluter pays’ principle to prevent and remedy environmental damage.” Pursuant to the directive, ‘environmental damage’ “will include damage to species and natural habitats...and land contamination which causes significant risk of harming human health...” See “Polluter Pays Directive Finally Agreed”, *Environment Zone*, Feb. 2, 2004), at: (<http://lawzone.thelawyer.com/cgi-in/item.cgi?id=109329&d=204&h=243&f=209>). “A controversial aspect of the [directive], at least as far as industry is concerned, is the wide definition of ‘environmental damage’ [contained in Article 2]. Not only does it cover land and water pollution but also damage to the biodiversity of any protected species or habit.” *Id.* Another questionable aspect of this directive is Article 4.5. It provides that “This Directive shall only apply to environmental damage or to an imminent threat of such damage caused by pollution of a diffuse character, *where it is possible to establish a causal link* between the damage and the activities of individual operators” (emphasis added). However, one must stop to consider *the low evidentiary threshold for establishing causation* that will likely be employed here, in light of the precautionary principle.

⁸⁹ *Id.*, at 15-16.

⁹⁰ *Id.* “The purpose of this White Paper is to explore how the polluter pays principle can best serve these aims of Community environmental policy... ‘Community policy on the environment shall be (...) based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.’” *Id.*, at 9, citing Article 174(2) of the EC Treaty.

⁹¹ See “United Kingdom Response to European Commission White Paper on Environmental Liability”, Department for Environment, Food and Rural Affairs (DEFRA), at par. 30, at: <http://www.defra.gov.uk/environment/consult/liability/response/>.

⁹² “[T]he burden to produce evidence (burden of production) is assigned to a Party who must generate information or proof [whereas,] the burden of persuasion is an assignment of responsibility to a Party to provide sufficient proof or to remove uncertainty to the satisfaction of a fact-finding body. A common reason for assigning both burdens to a Party is that such Party is in the best position to have information to resolve the factual and legal issues in question.” See Carl F. Cranor, “Some Legal Implications of the Precautionary Principle: Improving Information-Generation and Legal Protections”, at 37 at: <http://www.collegiumramazzini.org/links/CRANOR.pdf>.

⁹³ *Id.* at 37.

⁹⁴ “The Latin phrase... means nothing more than ‘the thing speaks for itself’... The statement of this doctrine most often quoted is that of Chief Justice Erle in... [*Scott v. London & St. Katherine Docks Co.*, 1865, 3 H. & C. 596, 159 Eng. Rep. 665]... ‘There must be reasonable evidence of negligence; but where the thing is shown to be under the management of the defendant or his servants, and the accident is such as in the ordinary course of things does not happen if those who have the management use proper care, it affords reasonable evidence, in the absence of explanation by the defendants, that the accident arose from want of care.’ See Willam L. Prosser, *Handbook of The Law of Torts*, Fourth Edition, at 213-217.

⁹⁵ “The Latin phrase... means nothing more than ‘the thing speaks for itself’... The statement of this doctrine most often quoted is that of Chief Justice Erle in... [*Scott v. London & St. Katherine Docks Co.*, 1865, 3 H. & C. 596, 159 Eng. Rep. 665]... ‘There must be reasonable evidence of negligence; but where the thing is shown to be under the management of the defendant or his servants, and the accident is such as in the ordinary course of things does not happen if those who have the management use proper care, it affords reasonable evidence, in the absence of explanation by the defendants, that the accident arose from want of care.’ See Willam L. Prosser, *Handbook of The Law of Torts*, Fourth Edition, at 213-217.

⁹⁶ See Comments of Victor Schwartz, “Part Three: Content and Future of the Green Paper: An American Perspective, Green Paper and the Future of Product Liability Litigation in Europe”, *Green Paper and the Future of Product Liability Litigation in Europe*, Global Liability Issues, at 10.

⁹⁷ “[Since] [t]he application of th[e] standard of reasonable conduct... is a community standard, evidence of the usual and customary conduct of others under similar circumstances is normally relevant and admissible, as an indication of what the community regards as proper, and a composite judgment as to the risks of the situation and the precautions required to meet them... Custom also bears upon what others will expect the actor to do, and what, therefore, reasonable care may require him to do; upon the feasibility of taking precautions, the difficulty of change, and the actor’s opportunity to learn the risks and what is called for to meet them.” See Willam L. Prosser, *Handbook of The Law of Torts*, Fourth Edition, at 166. However, “customs which are entirely reasonable under the ordinary circumstances which give rise to them in the first instance, may become entirely unreasonable in the light of a single fact altering the situation in the particular case... [Furthermore,] some [customs and usages] are the result of careful thought and decision, while others arise from the kind of inadvertence, carelessness, indifference, cost-paring and corner-cutting that normally is associated with *negligence*. There can certainly be such a thing as customary negligence... Even an entire industry, by adopting such careless methods to save time, effort or money, cannot be permitted to set its own uncontrolled standard... Much the better view, therefore, is that of the great majority of the cases, that every custom is not conclusive merely because it is a custom, and that it must meet the challenge of ‘learned reason’, and be given only the evidentiary weight which the situation deserves” (emphasis added). *Id.*, at pp. 166-168.

⁹⁸ This result would likely obtain, because the precautionary principle, which calls for the exercise of *more than* reasonable (*extraordinary*) care, would already be reflected in community customary practice and underlie state-of-the-art product design.

⁹⁹ Previously, “Most Member States adopted this defense, but the Council and the European Commission reviewed this particular provision very closely to see how it was affecting the implementation of strict liability among the Member States.” See Comments of Leah Lorber, “Part One: Product Liability in Europe and the Role of the European Commission”, *Green Paper and the Future of Product Liability Litigation in Europe*”, at 1-2.

¹⁰⁰ See Comments of Victor Schwartz, *supra* note 93 at 12.

¹⁰¹ “As a general rule, a product is defective in design ‘when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design... and the omission of the alternative design renders the product not reasonably safe.’ Inherent features of a product... are not design defects... Most jurisdictions seem to use some variant of a risk-utility or risk-benefit test, balancing the severity and the likelihood of occurrence of the potential harm against the product’s benefits and the burden that effective precautions would impose. If the risk outweighs the utility, the product can be considered to have a design defect.” See David A. Grossman, “Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation”, *supra*, at 44-45, citing Section 2(b) of Restatement (Third) of Products Liability (1998) and Section 402A of Restatement (Second) of Torts (1965). “[M]ost courts engaged in risk-benefit analysis require plaintiffs to prove the existence of an alternative design that is feasible and that could have avoided the injury in question. Courts also look to whether the alternative design is safer, is technologically and economically feasible, does not impair the usefulness of the product, and does not create other equal or greater risks... A court cannot judge past and alternative designs, however, by contemporary standards or expectations: a design defect must be measured against standards as of the time of marketing.” *Id.*, at 45-46.

¹⁰² *Id.*, at 49, fn 271.

¹⁰³ “Commonly accepted defences should be allowed, such as Act of God (force majeure), contribution to the damage or consent by the plaintiff, and intervention by a third party (an example of the latter defence is the case that an operator caused damage by an activity that he conducted following a compulsory order given by a public authority). Several interested parties, in particular economic operators, have expressed the view that *a defence* in relation to damage caused by releases authorised through EC regulations, *for state of the art and/or for development risk should also be allowed*. For economic reasons they need predictability regarding their liabilities to third parties, but the occurrence and extent of these liabilities are subject to ongoing developments in any event (e.g. changes in legislation and case law, medical progress, etc.). *Defences like the ones mentioned here are normally not allowed by existing national environmental liability regimes of EU Member States*” (emphasis added). See “EU Commission White Paper on Environmental Liability COM (2000) 66 final (2/9/2000), at par. 4.3, at 17.

¹⁰⁴ See Comments of Leah Lorber, *supra* note 95 at 2-3.

¹⁰⁵ See Comments of Victor Schwartz, *supra* note 93 at 12.

¹⁰⁶ See Comments of Leah Lorber, at 2-3.

¹⁰⁷ “Burden of proof rules also predispose legal outcomes: the party with the burden of production loses, if he/she cannot produce enough information relevant to the case; the party with the burden of persuasion loses, if too much uncertainty remains to convince a fact-finding body, typically a jury (some aspects of Precautionary Principles resemble burden of proof rules. According to the UN PP the fact that decision makers have failed to remove all scientific uncertainty is not a reason for inaction, not a reason for not changing the *status quo ante*” (emphasis in original). “Some Legal Implications of the Precautionary Principle,” *supra* note 88 at 37.

¹⁰⁸ “The development risk defense is one of the most controversial parts of the Directive... It is an important symbolic concession since it encourages innovation. There is a great fear that if the Directive is changed, through the reversal of the burden of proof and by removing the development risk defense, there will suddenly be a very dramatic change in the balance of the law to favor plaintiffs.” Comments of Chris Hodges, “Part Two: Content and Future of the Green Paper: A European Perspective”, Green Paper and the Future of Product Liability Litigation in Europe”, Global Liability Issues, at 4.

¹⁰⁹ Comments of Victor Schwartz, *supra* note 93 at 12.

¹¹⁰ Comments of Rod Hunter, “Part Four: Litigators React, Green Paper and the Future of Product Liability Litigation in Europe”, at 15.

¹¹¹ Tom Baker, “Liability Insurance After September 11th: *Embracing Risk* Meets the Precautionary Principle”, Univ. of Connecticut School of Law Working Paper Series, Paper 4, at 11 (2002), at: (<http://lsr.nellco.org/uconn/ucwps/papers/4>).

¹¹² Jonathan Simon, “Weschler’s Century and Ours: Reforming Criminal Law in a Time of Shifting Rationalities of Government”, 7 Buffalo Criminal Law Review 247-274, at 269 (2003), at: (<http://wings.buffalo.edu/law/bclc/bclrarticles/7/1/simon.pdf>). The providence paradigm “treated accidents as aberrational... as acts of God, or the results of individual fault.” *Id.*

¹¹³ In other words, “a socially advantageous balance of risks.” *Id.*, at 268.

¹¹⁴ According to Jonathan Simon, the risks that were shared included the risk of worker accidents as well as the risk of crime. *Id.*, at 268.

¹¹⁵ *Id.*, at 269-270.

¹¹⁶ *Id.*, citing Francois Ewald, *The Return of Descarte’s Malicious Demon: An Outline of a Philosophy of Precaution*, Chap. 11, in *Embracing Risk: The Changing Culture of Insurance and Responsibility*, (Tom Baker and Jonathan Simon eds., Univ. of Chicago Press (2002).

¹¹⁷ Tom Baker, “Liability Insurance After September 11th: *Embracing Risk* Meets the Precautionary Principle”, at 11.

¹¹⁸ *Id.*

¹¹⁹ *Id.*, at 12.

¹²⁰ *Id.*

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.*, at 13.

¹²⁴ *Id.* at 11 (2002), citing Francois Ewald, *The Return of Descarte’s Malicious Demon: An Outline of a Philosophy of Precaution*, Chap. 11, in *Embracing Risk: The Changing Culture of Insurance and Responsibility*, (Tom Baker and Jonathan Simon eds.), Univ. of Chicago Press (2002).

¹²⁵ Peter Goldsmith, Hamish Gow and Nesve Turan, “Is it Safe? Post-Market Surveillance versus Ex-ante Signalling”, at 11.

¹²⁶ *Id.*

¹²⁷ *Id.*, at 10-11.

¹²⁸ “Member States shall take measures to encourage the development of financial security instruments and markets by the appropriate economic and financial operators, including financial mechanisms in case of insolvency, *with the aim of enabling operators to use financial guarantees to cover their responsibilities under this Directive*... The Commission, before 30 April 2010 shall present a report on the effectiveness of the Directive in terms of actual remediation of environmental damages, on the availability at reasonable costs and on conditions of insurance and *other types of financial security for the activities covered by Annex III*... The Commission takes note of article 14(2). In accordance with this [A]rticle, the Commission will present a report, six years after the entry into force of the Directive, covering, inter alia, *the availability at reasonable costs and conditions of insurance and other types of financial security*. The report will in particular take into account *the development by the market forces of appropriate financial security products in relation to the aspects referred to*.” (emphasis added). See Directive 2004/35/CE, Art. 14, and Commission Declaration on Article 14(2) – Environmental Liability Directive.

¹²⁹ This estimate was rendered by John Dutton, Dean Emeritus of the Penn State University College of Earth and Mineral Sciences. See Eugene Linden, “Who’s Going to Pay for Climate Change? – The Threat of Lawsuits – and an Exodus of Insurance Companies – May Finally Force Corporations to Think Green”, Viewpoint, TIME (Feb. 7, 2003), at: (<http://www.time.com/time/columnist/printout/0,8816,420539,00.html>).

¹³⁰ John L. Cusack, “The Insurance Perspective: Shareholder Value at Risk – The Need for Climate Change Risk Management”, Climate Solutions for the Northeast Conference, Marsh Environmental Business Consulting Practice (May 13, 2003), at 3-4.

¹³¹ *Id.*, at 6.

¹³² “Swiss Re recently estimated that the costs of global warming are likely to double to 150 billion pounds a year by 2014. As a result, insurers will face annual payouts some \$30 to \$40 billion higher than now.” Alasdair Murray, “Counting the Cost of Climate Change”, E!Sharp (Sept. 2004), at 21.

¹³³ Christopher Walker, “Climate Change – Shelter From the Storm”, FINANCIAL WORLD (June 2004), at 20.

¹³⁴ See Christopher Walker and Mark Way, “The Heat is On”, Global Reinsurance Magazine, Swiss Re Corporation (July/August 2004), at: (<http://www.swissre.com/INTERNET/pwswpspr.nsf/vwAllbyIDKeyLu/abod-63tabb?OpenDocument>).

¹³⁵ *Id.*

¹³⁶ Linden, *supra* note 125.

¹³⁷ Sonja Butzengeiger, “Climate Change Related Risks and Company Ratings”, Germanwatch Discussion Paper (Jan. 2004), at 3.

¹³⁸ *Id.*

¹³⁹ *Id.*, at 4.

¹⁴⁰ See Christopher Walker and Mark Way, “The Heat is On”, *supra*.

¹⁴¹ Linden, *supra* note 125.

¹⁴² See “Insurance and Climate Change”, ClimateBiz, at: (<http://www.climatebiz.com>).

¹⁴³ *Id.*, at 20-21.

¹⁴⁴ See Joel Gordes and Jeremy Leggett, “ElectroFinance – A New Insurance Product for a Restructured Electric Market”, at: (http://solstice.crest.org/repp_pubs/articles/issuebr13/01Part1.htm).

¹⁴⁵ *Id.*

¹⁴⁶ Standard D&O policies have not traditionally excluded from coverage liability imposed for conduct that amounts to a failure to act, failure to investigate and/or failure to conduct due diligence, unless those failures constituted willful illegal acts. See “Update Disney: The Case that Means Worries Aplenty for the Kings and Princes of the Magic Kingdom”, EXECUTIVE RISKS NEWSLETTER ALERT, Willis, North America (Dec. 2004), at: (<http://www.willis.com>). See, also C. Gregory Rogers, “Uninsured and Undisclosed Environmental Liabilities Pose Risks for Directors”, National Association of Corporate Directors (May 2003), at 11-13. Mr. Rogers, however, warns that “*Most directors and officers (D&O) policies contain a ‘pollution exclusion,’ denying coverage for any claim against a director or officer that has as its underlying cause the release or threatened release of pollutants. This includes securities claims arising from environmental matters.*”

¹⁴⁷ “Congress enacted... CERCLA in the early 1980s to allow governments or private parties to recover environmental cleanup costs from those responsible for the spills or releases of hazardous substances.” “Pursuant to the statute, however, the officers and directors of such corporations cannot be held directly liable. Despite this statutory protection, when corporations violate CERCLA, shareholders may be able to use a derivative suit to hold officers and directors liable based on the corporate actors’ fiduciary duty of care.” Primo Fontana, “CERCLA Derivative Suits”, 27 B.C. ENVIRONMENTAL AFFAIRS L.R. 741 (2000), at 741, at: (http://www.bc.edu/schools/law/lawreviews/meta-elements/journals/bcealr/27_4/04_FMS.htm).

¹⁴⁸ “Where corporate actors have been held liable for CERCLA violations, it has been through direct, rather than derivative, liability. This means that it is not necessary for the plaintiff, be it the government or

otherwise, to impose derivative liability by “piercing the corporate veil.” When the corporate veil is pierced, the plaintiff breaks beyond the limited liability protection of the corporate form, and reaches the personal assets of the corporate actor. This means that the fundamental feature of the corporate form, i.e., the limited liability of those who run the corporation, is violated. Piercing the corporate veil is a difficult process because courts will typically only pierce the veil in instances where the corporate form is used for an improper or an illegal purpose. *Direct liability, in contrast to the derivative liability described above, is imposed when a director or officer is personally liable because of his direct personal participation in the commission of a tortious or illegal act, even if the act was committed on behalf of the corporation in good faith.* Although liability under CERCLA is usually presumed to attach directly, there have been a few instances when courts have undertaken analyses of derivative liability” (emphasis added). *Id.*, at 759.

¹⁴⁹ See, e.g. *Joslyn Corp. v. T.L. James & Co., Inc.*, 696 F. Supp. 222, 224-225 (W.D. La. 1988), (wherein “a Louisiana district court refused to allow CERCLA liability to be imposed upon individual corporate officers. The district court reasoned that the corporate form ‘is a doctrine firmly entrenched in American jurisprudence,’ and that as such, it ‘may not be disregarded absent a specific congressional directive.’ Since, according to the court, there was nothing in the clear language or the legislative history of CERCLA that provided liability for individual corporate officers, such liability could not be imposed.” *Id.*, at 759-760.

¹⁵⁰ In *United States v. Bestfoods*, 118 S. Ct. 1876 (1998), the Supreme Court held that when state law allowed, a parent corporation could be liable for the CERCLA violations of its subsidiary.

¹⁵¹ See, Section IX – Indirect Efforts to Reform U.S. Federal Law, Subsection A – State Attorneys General Lawsuits, *infra*,

¹⁵² For example, the Dow Jones Sustainability Indices were established to benchmark the performance of investments in sustainability companies and funds. The indices are provided by Dow Jones in association with SAM Sustainable Asset Management and STOXX Limited. There is also the FTSE4Good family of eight indices. Four provide benchmark indices and four tradable indices. The FTSE4Good bases entry on its Selection Criteria which cover three areas: working towards environmental sustainability; developing positive relationships with stakeholders; upholding and supporting universal human rights.

¹⁵³ As of May 2003, twenty-four institutional investors, representing USD \$4 million were signatories to the Carbon Disclosure Project. See Martin Whittaker, “Truth & Trust: The Basis of the Carbon Disclosure Project – GHG Registries: The Building Blocks of Climate Policy” Innovest Strategic Value Advisors (May 2003), at: (<http://www.innovestgroup.com>).

¹⁵⁴ “On May 31, 2002, 35 institutional investors representing assets in excess of US\$4.5 trillion wrote to the Chairmen of the FT500 Global Index companies. They asked the companies for investment relevant information relating to greenhouse gas mitigation.” See Martin Whittaker, “Carbon Finance and Global Equity Markets”, Innovest Strategic Value Advisors, for the Carbon Disclosure Project (Feb. 2003). According to Swiss Re, during 2003 there were more than 25 shareholder resolutions filed. 32% were filed at Chevron, 22% at Exxon, 27% at AEP [an electric utility], etc. and some of these garnered about one third of votes in support. More than 25 shareholder resolutions had also been planned for 2004, targeting the energy, utility, automotive and insurance industries. See Christopher Walker, “Fingerprints and Footprints: Climate Change and Greenhouse Gas Emissions – A Reinsurer’s Perspective”, Swiss Re, Presentation to the Association of the Bar of the City of New York (March 10, 2004), at p. 7; Christopher Walker, “Fingerprints and Footprints: The Commercialization of Sustainability—A Reinsurer’s Prospective – The Role of the Financial Community” (May 12, 2004), at p. 7, at: (www.theclimategroup.org/tcg_conf_walker.ppt).

¹⁵⁵ *Cede & Co. v. Technicolor, Inc.*, 634 A.2d 345, 361 (Del. 1993).

¹⁵⁶ “Under Delaware law, corporate directors owe the corporation what the Delaware supreme court has taken to calling a ‘triad’ of fiduciary duties: care, good faith, and loyalty.” See Stephen M. Bainbridge, “Business Judgment Rule as Abstention Doctrine”, University of California, Los Angeles, School of Law, Law & Economics Research Paper Series, Research Paper 03-18, (July 2003) at 6, at: (<http://ssrn.com/abstract=429260>).

¹⁵⁷ *Id.*, citing *Graham v. Allis-Chalmers Mfg. Co.*, 188 A.2d 125, 130 (Del. 1963).

¹⁵⁸ *Id.* at 6-7, citing *Joy v. North*, 692 F.2d 880, 885 (2d Cir. 1982), (“holding that: ‘While it is often stated that corporate directors and officers will be liable for negligence in carrying out their corporate duties, all seem agreed that such a statement is misleading... Whatever the terminology, the fact is that liability is rarely imposed upon corporate directors or officers simply for bad judgment and this reluctance to impose liability for unsuccessful business decisions has been doctrinally labeled the business judgment rule.’”

¹⁵⁹ According to this commentator, “If the business judgment rule is framed as an abstention doctrine, however, judicial review is more likely to be the exception rather than the rule. The court begins with a presumption against review. It then reviews the facts to determine not the quality of the decision, but rather whether the decisionmaking process was tainted by self-dealing and the like. The requisite questions to be asked are more objective and straightforward: Did the board commit fraud? Did the board commit an illegal

act? Did the board self-deal? Whether or not the board exercised reasonable care is irrelevant, as well it should be. The business judgment rule thus builds a prophylactic barrier by which courts pre-commit to resisting the temptation to review the merits of the board's decision... If the business judgment rule is treated as a standard of liability, rather than an abstention doctrine, judicial intervention readily could become the norm rather than the exception." *Id.*, at 47-48.

¹⁶⁰ *Id.*, at 8, fn 41, citing *Brehm v. Eisner*, 746 A.2d 244, 264 n.66 (Del. 2000). ("stating that 'directors' decisions will be respected by courts unless the directors are interested or lack independence relative to the decision, do not act in good faith, act in a manner that cannot be attributed to a rational business purpose or reach their decision by a grossly negligent process that includes the failure to consider all material facts reasonably available"); *Citron v. Fairchild Camera and Instrument Corp.*, 569 A.2d 53, 64 (Del. 1989) ("stating that if plaintiff 'fails to meet her burden of establishing facts rebutting the presumption, the business judgment rule, as a substantive rule of law, will attach to protect the directors and the decisions they make'").

¹⁶¹ *Id.*, at 18, citing *Auerbach v. Bennett*, 393 N.E.2d 994 (N.Y. 1979) ("so long as directors were disinterested and acted in good faith, the business judgment rule required court to defer to board committee's recommendation to dismiss a shareholder derivative suit").

¹⁶² *See, infra*. The case of *Brehm v. Eisner* involved the Walt Disney Company's very large severance payment (\$140 million) to its former President Michael Ovitz, made in 1996 at the request of CEO Michael Eisner.

¹⁶³ *Id.*

¹⁶⁴ *Id.* at 18-19, citing 746 A.2d 244, 264, n 66.

¹⁶⁵ 488 A.2d 858 (Del. 1985).

¹⁶⁶ Stephen M. Bainbridge, "Business Judgment Rule as Abstention Doctrine", *supra*, at 10. "The Board made its decision based solely on Van Gorkom's presentation and another presentation by a member of senior management regarding feasibility. Neither of the presentations provided enough information about the merger to give the Board an accurate representation of its possible implications. Moreover, the Board meetings were called hastily and the possible acquiring party imposed urgent time constraints on the deal. These circumstances, according to the *Van Gorkom* Court, should have led the Board to make further inquiries about the deal." Fontana, *supra* note 143 at 752.

¹⁶⁷ Bainbridge, *supra* at 10, citing *Van Gorkom*, 488 A.2d at 873. "Even though the proposed merger would have benefited the shareholders because of the relatively high price offered, the inadequate procedures imposed personal liability on the directors." Fontana, *supra* note 143, at 753.

¹⁶⁸ 473 A.2d 805, 813 (Del. 1984).

¹⁶⁹ In other words, "directors may only invoke the business judgment rule when they have made a conscious decision." Bainbridge, *supra* note 161 at 17, citing *Aronson v. Lewis*.

¹⁷⁰ 473 A. 2d 805 at 812.

¹⁷¹ 698 A.2d 959 (Del. Ch.1996). In the *Caremark* case, plaintiff shareholders brought a derivative suit against the corporation seeking to hold the board of directors personally liable for breach of the duty of care. They alleged that the board's failure to proactively detect illegal activities engaged in by certain employees caused significant corporate financial losses. They argued, more specifically, that the board's failure to "proactively implement a monitoring system to notify the directors of such illegal behavior, allowed the illegal conduct to 'develop and continue' to an extent that resulted in high losses to the corporation... [The court found, in effect, that]... the failure to monitor [constituted] a lack of 'due attention', the type required by the duty of care." Fontana, *supra* note 143, at 749.

¹⁷² *Id.*, at 750-751. "The system, however, according to the *Caremark* court, should be 'in concept and design adequate to assure the board that appropriate information will come to its attention in a timely manner as a matter of ordinary operations.'" *Id.*

¹⁷³ Bainbridge, *supra* note 161 at 18

¹⁷⁴ 325 F.3rd (7th Cir. 2003). Motion to dismiss denied on Mar. 28, 2003.

¹⁷⁵ *See* Meredith M. Brown and William D. Regner, "What's Happening to the Business Judgment Rule?", Debevoise Publications (June 19, 2003), at:

<http://www.debevoise.com/publications/pubsdetail.asp?pubid=1455206192003&typeid=4&print=yes>.

¹⁷⁶ *Id.*

¹⁷⁷ 825 A.2d 275 (Del. Ch. 2003).

¹⁷⁸ Brown and Regner, *supra* note 170. "Chancellor William B. Chandler, III refused to dismiss claims that the directors of the Walt Disney Company, notwithstanding their independence and the lack of a material conflict of interest, nonetheless breached their fiduciary duty to Disney stockholders..." *See* "Life After Disney: The Evolving Role of Directorial Good Faith in Executive Compensation", News and Events,

Buchanan Ingersoll, PC (Jan. 14, 2005), at:

(<http://www.bipc.com/print/index.cfm?mode=newsArticle&id=1179>).

¹⁷⁹ See “The Business Judgment Rule – *No Longer An Impenetrable Defense?*”, Shareholder Alert, Volume II, Summer 2003 Abbey Gardy, LLP, at p. 2, at: (<http://www.a-g-s.com/download/news-sum2003.pdf>).

¹⁸⁰ *Id.*, citing the opinion.

¹⁸¹ 825 A. 2d at 289.

¹⁸² *Id.* For this reason, the “Court further held that the directors’ alleged actions...fell outside the scope of the Section 102(b)(7) provision in Disney’s charter. [Section]...102(b)(7) [of the Delaware Codes Annotated]...provid[es] that a corporation may not eliminate or limit directors’ personal liability for, among other things, ‘acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law.’” See “Life After Disney”, *supra* note 173. Indeed, the Delaware Court of Chancery, in a subsequent decision, “emphasized that under *Disney*, to survive a motion to dismiss where a corporation’s charter contains a Section 102(b)(7) provision, ‘a plaintiff must plead facts that, if true, would imply that a Board *consciously and intentionally disregarded [its] responsibilities*’ – a standard that the Court acknowledged as setting a ‘high bar’” (emphasis in original). *Id.*, at fn 23, citing *Integrated Health Services, Inc.*, 2004 WL 1949290.

¹⁸³ See “Update Disney: The Case that Means Worries Aplenty for the Kings and Princes of the Magic Kingdom”, Executive Risks Newsletter Alert, Willis, North America. “The courts are indeed willing to hold boards accountable on matters they previously would have passed over, likely explanations aren’t hard to find. [Experts] point to the recent spate of corporate scandals and the consequent public expectations for higher ethical standards...[C]orporate boards...are being challenged in courtrooms not just over failures to detect accounting shenanigans, but over actions that traditionally have fallen under the protection of the business-judgment rule.” See Kris Firreswick, “Judgment Calls – Recent Shareholder Suits May Be Opening Cracks in the Protection Afforded by the Business-Judgment Rule”, CFO Magazine (Feb. 1, 2004), at: (<http://www.cfo.com/printable/article.cfm/3011471?f=options>).

¹⁸⁴ “Some commentators have viewed the *Disney* opinion as an effort by the Delaware judiciary, in the wake of highly-publicized corporate scandals and the adoption of the Sarbanes-Oxley Act, to expand the previously undefined fiduciary obligation of ‘good faith’ to combat passive board oversight practices of the Enron era.” See “Life After Disney: The Evolving Role of Directorial Good Faith in Executive Compensation”, News and Events, Buchanan Ingersoll, PC, fn 4, citing: Renee M. Jones, “Rethinking Corporate Federalism in the Era of Corporate Reform”, 29 J. CORP. L. 625, 654-57 (Spring 2004).

¹⁸⁵ *Id.*, quoting Chief Justice Veasey.

¹⁸⁶ *Integrated Health Services, Inc.*, 2004 WL 1949290, at 13.

¹⁸⁷ See e.g., Mark Mansley, “Sleeping Tiger, Hidden Liabilities”, Claros Consulting. This paper argued that ExxonMobil’s board essentially abdicated its responsibility for reviewing the management of climate change risk. It reasoned that the company had not adequately disclosed to shareholders how it was addressing “the existing and future risks and opportunities from climate change and how the company is preparing to protect long-term shareholder value from the risks [i.e., policy risks, competition/market risks, other risks].”

¹⁸⁸ *Id.*, at 10.

¹⁸⁹ See “Susannah Blake, Jonas Kron, and Tim Little, “The Environmental Fiduciary – The Case for Incorporating Environmental Factors into Investment Management Policies”, The Rose Foundation for Communities & the Environment (2002).

¹⁹⁰ See Christopher Rowland, “Greening of the Boardroom – Socially Conscious Investors Get Results on Global Warming”, BOSTON GLOBE (Mar. 31, 2005).

¹⁹¹ See Andrew Davis and Stephen Humes, “Sarbanes-Oxley (Implicitly) Demands Environmental Disclosure”, Browne Digest (Sept. 2004) at 2, abstracted from “Environmental Disclosures After Sarbanes-Oxley”, Practical Lawyer, Vol. 50, No. 3, at 19-26.

¹⁹² See Christopher Walker, “Fingerprints and Footprints: Climate Change and Greenhouse Gas Emissions – A Reinsurer’s Perspective”, *supra*.

¹⁹³ “SEC and Social/Environmental Accounting - Corporate Sunshine Working Group Bulletin” (Mar. 2003). “The Corporate Sunshine Working Group is an alliance of investors and public interest organizations that advocates for broader and deeper corporate environmental and social disclosure requirements at the Securities and Exchange Commission, and monitors the SEC’s enforcement of existing laws. The CSWG bulleting is published quarterly. Contact Michelle Chan-Fishel of *Friends of the Earth – US*. To subscribe, send a blank email to sunshinewg-subscribe@topica.com” (emphasis added).

¹⁹⁴ *Id.*

¹⁹⁵ *Id.*; see also “SEC and Social/Environmental Accounting - Corporate Sunshine Working Group Bulletin” (Dec. 2002).

¹⁹⁶ *Id.*, citing (http://www.unepfi.net/risk/agenda_locations.pdf).

¹⁹⁷ See Michel Chan-Fishel, “Second Survey of Climate Change Disclosure in SEC Filings of Automobile, Insurance, Oil & Gas, Petrochemical and Utility Companies”, Friends of the Earth – U.S. (Nov. 2003).

¹⁹⁸ See Bertrand Benoit, “German R&D Continues to Shift Abroad”, FINANCIAL TIMES, Feb. 1, 2005.

¹⁹⁹ “Labour costs are high in the EU, reflecting not only salaries and wages, *but also the costs of the high level of European health and safety standards* and welfare systems. They are 20% higher than in North America, and about 100% higher compared with South America and Asia. This has a considerable impact in labour-intensive sectors such as the printing, publishing and the woodworking industries...” (emphasis added). See “The State of the Competitiveness of the EU Forest-Based and Related Industries: Draft Communication to the Council, the European Parliament, the Economic and Social Committee and the Committee of the Regions (Oct. 4, 1999) COM(1999) 457 (10/5/99), at 7.

²⁰⁰ *Id.*, at 8.

²⁰¹ *Id.*, at 9.

²⁰² *The Pharmaceutical Industry in Figures – 2004 Edition*, “Pharmaceutical Research and Development” The European Federation of Pharmaceutical Industries and Associations (EFPIA) (2004), at 19, at: (http://www.efpia.org/6_publications/2004d.pdf). “Distribution margins...are generally fixed by government and VAT rates...” *Id.*

²⁰³ *Id.*, at 21.

²⁰⁴ *Id.*, at 23.

²⁰⁵ “It is widely agreed in Europe today that basic research plays an important role in fostering sustainable economic development, competitiveness as well as employment...The resulting lack of competition between the best researchers is one of the reasons that Europe is at a *comparative disadvantage* with regard to the prominent position of the United States in terms of funding and outcome in the field of basic research...between 1980 and 2003, 68 of the Nobel Prize winners in physiology and medicine, physics and chemistry came from Europe, compared with 154 from the United States” (emphasis added). See Martin Schmid, “The Seventh Framework Program – Europe’s Next Step Toward the Lisbon Goals”, Bridges Vol. 3 (10/5/04), Office of Science and Technology U.S. Embassy of Austria, at: (http://www.ostina.org/html/bridges_archive/article.htm?article=1161).

²⁰⁶ *The Pharmaceutical Industry in Figures – 2004 Edition*, “Pharmaceutical Research and Development” The European Federation of Pharmaceutical Industries and Associations (EFPIA), at 22.

²⁰⁷ See A.. Gambardella, L. Orsenigo and F. Pammolli, “Global Competitiveness in Pharmaceuticals – A European Perspective”, Report prepared for the Directorate General Enterprise of the European Commission (Nov. 2000), at 83, at: (http://europa.eu.int/comm/enterprise/library/enterprise_papers/pdf/enterprise_paper_01_2001.pdf). Data confirm that the 1990s have shown an acceleration of the competitiveness of the US pharmaceutical industry as a whole in the innovation-intensive segment of the industry. First, the leading US firms have a higher share of turnover based on recent products compared to the European firms. Second, the US: i) have a higher share of patents in the new biotech fields compared to “classical” pharmaceuticals; [and] ii) are a preferred destination of research by the European companies as well”. *Id.*

²⁰⁸ See “Horizon 2015: Is the European Chemical Industry Losing its Global Leadership?” Cefic (June 2004), at 3, at: (http://www.cefic.be/Files/Publications/Cefic_Dipliant_2015.pdf).

²⁰⁹ See Arthur D. Little GmbH, “Economic Effects of the EU Substances Policy – Report on the BDI Research Project”, summarized in Lawrence Kogan, “Unscientific ‘Precaution’: Europe’s Campaign to Erect New Foreign Trade Barriers”, at 2, fn 2. It was released during December 2002.

²¹⁰ *Id.*

²¹¹ The 2002 study was updated during August 2003. See “Arthur D. Little, “Economic Effects of the EU Substances Policy – Supplement to the Report on the BDI Research Project, 18th December 2002” (Aug. 31, 2003); “EU Chemicals Policy Would Cost German Industry 1.7 Million Jobs – BDI-Director General von Wartenberg: ‘We Ask for a NEW REACH’”, BDI Press Release (Sept. 16, 2003).

²¹² See Arthur D. Little, “New Proposals for Chemicals Policy: Effects on the Competitiveness of the Chemical Industry - (Project EP/IV/A/2003/07/03-2) – Study for the Directorate General for Research”, (Apr, 2004), at: (http://www.env-health.org/IMG/doc/adlittlestudy_Chempolicy_19apr04.doc).

²¹³ *Id.*, at 16-17, citing “Future European Chemicals Policy Impact Study” (Apr. 9, 2004), a study conducted by Mercer Management Consultants, and sponsored by Union Industry Chimique (UIC).

²¹⁴ *Id.*, at 18-20, citing “New Chemicals Policy (R.E.A.C.H.) – Evaluation of the Business Impact on the Chemical Industry and on the Textile Sector of Italy” (Feb. 11, 2004), a study conducted by Centro per L’innovazione e la Ricerca Chimica (CIRC).

²¹⁵ *Id.*, at 22.

²¹⁶ *Id.* The production losses of the most vulnerable sectors are as follows: textile and apparel – 38.8%; leather – 57.2%; paper, publishing and printing – 19.6%; coking, oil refining production of fertilizer – 33.1%; chemical industry, including pharmaceuticals – 24.7%; rubber and plastic goods – 44.6%. *Id.*

²¹⁷ *Id.*, at 26-27.

²¹⁸ European chemical companies such as Shell Petrochemical, Bayer, BASF, British Petroleum, for example, have made significant capital investments in Chinese plant and equipment during the past several years.

²¹⁹ The ‘European paradox’ refers to Europe’s growing deficit in trade of high tech products and its decline in research and development investment relative to gross domestic product. *See* “International Science and Technology: Policies, Programs and Investment”, Office of Technology Policy, U.S. Department of Commerce, Technology Administration (Dec. 2000), at 39. For example, in 2001, it was reported that “market capitalization of U.S. biotech firms was five times that of EU companies.” *See* Agrifood News (Nov. 26, 2002).

²²⁰ For a detailed survey of European industry’s battle with European regulators over the growing use of the precautionary principle in risk regulation, *See* “Looking Behind the Curtain”, *supra* note 22, at 66-87, 107-118.

²²¹ *See* Alasdair Murray, “Counting the Cost of Climate Change”, E!Sharp (Sept. 2004).

²²² *See* “AeA Update: International Environmental Regulations Affecting Hi-Tech Companies”, Apr. 27, 2004), at: (http://www.aeanet.org/GovernmentAffairs/gaet_EnvUpdate042704.asp).

²²³ *See*: Richard P. Suttmeier and Yao Xiangkui, “China’s Post-WTO Technology Policy: Standards, Software and the Changing Nature of Techno-Nationalism”, The National Bureau of Asian Research, No. 7 (May 2004), at p. 25.

²²⁴ *See* “Unscientific ‘Precaution’: Europe’s Campaign to Erect New Foreign Trade Barriers” at p. 55, at fn 161. *See* fn 239, *infra*.

²²⁵ *See* J. Sanders, EU Science Counsellor Beijing, “EU-China S&T Relations” (Nov. 2002), at: (<http://europa.eu.int/comm/research/iscp/countries/china/cn-doc5.pdf>).

²²⁶ Comments of Chris Hodges, “Part Two: Content and Future of the Green Paper: A European Perspective”, Green Paper and the Future of Product Liability Litigation in Europe”, Global Liability Issues, at 3-4.

²²⁷ Like the EU regulations, the draft regulation which is entitled, ‘the Management Methods for the Prevention and Control of Pollution from Electronics Information Products (Methods) will “ban the use of lead (Pb), cadmium, mercury, hexavalent chromium, PBB and PBDE in electronic information products.” *See* “AeA Update: International Environmental Regulations Affecting Hi-Tech Companies”, Apr. 27, 2004.

²²⁸ In addition to already existing e-waste legislation in Japan, Taiwan has adopted mandatory recycling and take-back regulations for eight categories of e-waste. And, Brazil, Mexico and Argentina have take-back legislation that is similar to the EU legislation. *See* Jennifer Guhl, “Impacts and Implications of New European Environmental Law on the U.S. High-Tech Industry”, Presented at the AeA Mountain States Council Program (Dec. 4, 2003), at 40, at: (<http://www.aeanet.org/AeACouncils/LYvltAjkbcyOtUu.pdf>)

²²⁹ “Asia: China to Require EPR on Electronics”, Recycling Laws International – Latest News, Raymond Communications (Mar. 17, 2004), at: (<http://www.raymond.com/international>). However, “[a]pproval of regulations implementing a Restrictions of Hazardous Substances (RoHS) and a waste electronics law in China has been postponed.” *See* “Approvals of RoHS, WEEE Regs Postponed in China”, Recycling Laws International – Latest News, Raymond Communications (Sept. 24, 2004), at: (http://www.raymond.com/international/10_9/).

²³⁰ *See* “Environment, Health and Safety Trends in China – Shanghai PCOG Working Group Discusses Chemical Industry Regulations”, EuroBiz Chamber Event Report (Dec. 2004), at: (<http://www.sinomedia.net/eurobiz/v200412/event0412.html>).

²³¹ *See* “Chinese Comments on the EU REACH System”, submitted by the Ministry of Commerce, P.R. China, General Administration of Quality Supervision, Inspection and Quarantine of P.R. China (AQSIQ), (2003). *See*, also: “Association of Petroleum and Chemical Industries of China Comments to ‘The European Union Strategies on the Policies of Chemicals in the Future’” (July 4, 2003), discussed in Lawrence A. Kogan, “Enlightened Environmentalism or Disguised Protectionism? Assessing the Impact of EU Precaution-based Standards on Developing Countries, for the National Foreign Trade Council, at pp. 76-81, at: (<http://www.itssd.org/White%20Papers/L%20Kogan%20NFITC%20White%20Paper%203.pdf>).

²³² “As an important element of *sustainable development* – i.e. the pursuit of balance between economic growth, social development and protection of the environment – *co-operation on environment remains a key area of bilateral cooperation with China*. The current situation and development perspectives of the energy sector in China provide the best evidence of the need to reconcile economic growth with overall sustainable development. *Challenges are important, both for local quality of life (public health is especially impacted by*

ineffective energy patterns) and for contribution to global change. See “Commission Working Document – Country Strategy Paper China 2002-2006 [‘Country Strategy Paper’] and National Indicative Program 2002-2004” [‘National Indicative Program’], European Commission, IP/02/349 (Brussels, Mar. 1, 2002), “5.2.2 Environment and Sustainable Development” (emphasis added), at p.27, at:

(http://europa.eu.int/comm/external_relations/china/csp/02_06en.pdf). “This National Indicative Programme...is part of the Country Strategy Paper, which gives the framework for co-operation 2001-2006.” National Indicative Program at p. 1 [49].

²³³ “Europe should offer its environmental and energy know-how to China to help develop efficient and clean industrial processes and energy production. Establishing a presence in the market for green technology, along the lines set out in the Commission’s *Communication on a Europe-Asia Cooperation Strategy for Energy* (COM (96) 308), should be supported...The EC should in particular help China integrate environmental priorities - such as the prevention of industrial pollution and greenhouse gas emissions, and the conservation of biological diversity - further into national economic policy-making processes... The EC should also, along the lines set out in the *Communication on a Europe-Asia Cooperation Strategy for Energy* (COM (97) 490), develop co-operation projects focusing on cleaner production methods, waste minimisation, environmental standards and training, and environmental management capacities as well as appropriate technology transfer.” Country Strategy Paper at p. 28.

²³⁴ “China’s reforms are radically changing the economic and social landscape of the country. The pace of reform is impressive, but the process remains incomplete and fragile. The challenge for China is to pursue economic transition whilst at the same time *integrating the concept of sustainability into economic growth* and guarding itself against social instability. The EU should therefore help China build the institutions, policies, human resources, *management techniques, regulatory framework, standards...*” (emphasis added). Sec 2 “Priority 1: SUPPORT TO THE SOCIAL AND ECONOMIC REFORM PROCESS, 2.1 Strategic Context/Justification”, National Indicative Program 2002-2004 at p. 4 [52]. “As an important element of *sustainable development* – i.e the pursuit of a balance between economic growth, social development and protection of the environment – *cooperation on environment remains a key area of bilateral co-operation with China...*The current approach to biodiversity in China...needs to be reformed, and a more holistic view must be taken...In addition to industrial wastewater pollution control...the next decade will require decisive actions on the growing problems of municipal wastewater discharges and agricultural or “nonpoint” sources, notably emission from intensive livestock production units...Certain of these issues are challenges to be addressed not only bilaterally but also in the international context. *China and the EU are signatories to several multilateral environmental agreements and have a mutual interest in pursuing common objectives.* Environmental consequences of China’s entry into the WTO will also have to be addressed...” (emphasis added). Id., at Sec. “3 PRIORITY 2: ENVIRONMENT AND SUSTAINABLE DEVELOPMENT” at p. 15 [63].

²³⁵ The primary objective of the EU China Strategy is “Capacity building in the environmental area, notably in partnership with the State Environment Protection Administration (SEPA), its subordinates’ and related agencies’ in the *development, implementation and enforcement of legislation, policies, plans and standards*” (emphasis added). See Id., at Sec. “3.2 Actions - 3.2.1 Action 1: Environment Programme Policy Advice”, at p. 16 [64]. “The project will provide European expertise to support and guide the Chinese side in relation to policy, legislation, organisational structures and administrative good practices concerning environmental issues, both at central and subsidiary levels, taking China’s inclusion into WTO should into account...China, as a party to several multilateral environmental agreements (e.g. Climate Change, Biodiversity, Desertification) and as forthcoming member of WTO will need assistance in developing its capacity to respond to requirements either stated or implicit at the international agreement level. These could include the development of standards and guidelines for monitoring and modelling the ecological situation...” Id, at: “Sec. 3.2.3 Activities”, at p. 17 [65].

²³⁶ Pursuant to Article 12 of the Kyoto Protocol, firms within developing countries can obtain emissions reductions credits by engaging in project activities in a developing country through the clean development mechanism. Possible collaborative projects include the construction of high-tech ‘environmentally sound’ *power plants*, or more adaptive projects such as sea wall construction the goal of which is to protect a developing country from the impacts of climate change. *The CDM is intended to serve as a funding vehicle to assist developing countries towards sustainable development.*

²³⁷ See Barbara A. Finnemore and Tauna M. Szymanski, “Taming the Dragon Heads: Controlling Air Emissions From Power Plants in China – An Analysis of China’s Air Pollution Policy and Regulatory Framework”, 32 ELR 11439-458 (Dec. 2002).

²³⁸ See Richard P. Suttmeier and Yao Xiangkui, “China’s Post-WTO Technology Policy: Standards, Software and the Changing Nature of Techno-Nationalism”, at p. 25.

²³⁹ See “Prepared Statement of Richard P. Suttmeier – China’s ‘Technology Trap’ and the Reconstruction of the Chinese National Innovation System”, Presented at the Hearing on China’s High Technology US-China Development Economic and Security Review Commission, Stanford California (April 21-22, 2005), at p. 6.

²⁴⁰ See David Shambaugh, “The New Strategic Triangle: U.S. and European Reactions to China’s Rise”, *The Washington Quarterly*, by the Center for Strategic and International Studies and the Massachusetts Institute of Technology (28:3, Summer 2005) at pp. 12-13, at:

(http://twq.com/05summer/docs/05summer_shambaugh.pdf). Interestingly, both the EU and China favor a multi-polar world as a counter-balance to *perceived U.S. hegemony*. For example, the EU has observed that, “China is seeking a new strategic partnership with Russia, developing economic ties, including energy, and pursuing arms purchases. This reflects *China's interest in supporting global multipolarity and resisting perceived US hegemony...*” (emphasis added). See “Commission Working Document – Country Strategy Paper China at p.11, In the case of Europe, anti-American sentiments were repeatedly expressed by French political conservatives and socialists during the period leading up the failed referendums on the EU Constitution. “[A] large part of the ‘leftist’ opposition in France to the EU's proposed ‘constitutional treaty’ ...and some of the ‘rightist’ opposition...has known of no better argument against *the treaty/‘constitution’* than to say that it is *too ‘American’*. To the degree that this charge is ever fleshed out, it typically makes allusion to one of two aspects of the treaty. The first is *the treaty's alleged ‘neo-liberal’ inspiration, i.e. inasmuch as ‘neo-liberalism’ in this style of discourse is essentially reduced to the connotation of free trade and free trade is supposed to be either the cardinal sin of “the American way of life” or the secret weapon for establishing American hegemony or (confusedly) both.*” See John Rosenthal, “The European Constitution as American Plot” *Transatlantic Intelligencer* (March 15, 2005), at:

(<http://trans-int.blogspot.com/2005/03/european-constitution-as-american-plot.html>). “*Opposition to free-market, U.S. style economic policies was a central plank of the ‘no’ camp in the campaign leading up to Sunday’s French referendum. Surveys showed voters especially worried about the outsourcing of French jobs because of the EU’s recent eastward expansion...On the trade front, Mr. de Villepin’s outspoken nationalism is unlikely to facilitate a negotiated solution to the U.S.-EU spat over aircraft subsidies... Mr. Villepin’s cabinet is expected to continue the same foreign policy, which promotes the notion of a multi-polar world in which Europe acts as a counterweight to U.S. power*” (emphasis added). See John Carreyrou and Dan Bilefsky, “Chirac Rolls the Dice – Choice of Villepin as Prime Minister Poses Risks For France, EU”, *Wall Street Journal* (June 1, 2005), at p. A18. “[T]here was indeed something of significance in Chirac’s televised April 14 chat with a French youth: namely, the openness of the hostility to America and the ‘Anglo-Saxon’ world reflected in it... That Chirac should choose to play the anti-American card is hardly surprising... But the specific terms by which Chirac chose to express his hostility deserve, nonetheless, to be considered more closely...According to an AP report...for instance, “Referring to competition from the United States, Chirac said he opposes an ‘Anglo-Saxon, Atlanticist Europe’”. But Chirac referred to more than merely “competition” from the United States to explain his hostility to an “Anglo-Saxon, Atlanticist Europe”. The more correct term would be *rivalry*...” (emphasis added). See John Rosenthal, “Do Allies Talk Like This?” *Transatlantic Intelligencer* (April 25, 2005), at; (<http://trans-int.blogspot.com/2005/04/do-allies-talk-like-this.html>). This author also confronted this question during a Washington, DC lunch interview with BBC Reporter Simon Coates and Financial Times reporter Quentin Peel this past November 18, 2005. These gentlemen asked, whether, in light of the increasing tensions between Europe and the United States, Europe should any longer be viewed as an ally of the United States?

²⁴¹ *Id.*, at p. 15.

²⁴² Nearly ten percent of the EU budget now goes to the funding of [advocacy]...groups...[the] network of national advocacy groups in Brussels receives about half its funding from direct EU grants.” See Dennis Dutton and Wolfgang Kasper, “Green Protectionism”, at 24, citing A. Voss, “Betteln und Spenden”, de Gruyter, (Berlin 1992); J. Rabkin, “Euroglobalism? How Environmental Accords Promote EU Priorities into ‘Global Governance’ – and Global Hazards”, Centre for the New Europe (Brussels 1999).

²⁴³ A recent *New York Times* article emphasizes how “[American] environmental groups...are...putting more resources into Europe than [they] otherwise would have done...[and] are working more closely with European lawmakers...[in order] to use [stricter] regulations *there* as a lever for regulations in the United States” (emphasis added). The article, furthermore, identifies how the precautionary principle has been utilized by European legislators to limit or eliminate the use of potentially harmful brominated flame retardants in consumer goods like furniture and computer monitors, of metals in consumer electronics and of the many unregulated high volume chemicals used by various industries. In addition, the article notes how impending EU programs to curb European industry’s generation of greenhouse gases believed to cause global warming are being looked at by American environmentalists as a means “to promote change in the United States.” See Otto Pohl, ““European Environmental Rules Propel Change in U.S.” *New York Times*

(July 6, 2004), cited at: (<http://www.ewg.org/news/story.php?id=2767>); (<http://www.noharm.org/details.cfm?type=news&ID=67>).

²⁴⁴ See “Precaution and Power”, Editorial, *Multinational Monitor*, Vol. 25, No.9 (Sept.2004), at: (<http://multinationalmonitor.org/mm2004/09012004/september04editorial.html>).

²⁴⁵ See Martha A. Marks, “The Precautionary Principle; A Conservative Way of Thinking”, keynote speech given at the National Pollution Prevention Roundtable conference in Chicago (Feb. 28, 2001), at: (<http://www.rep.org/opinions/speeches/8.html>). Ms. Marks was “one of a trio of Republican women who established REP America back in 1995 to try to resurrect our party’s great conservation tradition and to restore natural resource conservation and sound environmental protection as fundamental elements of the Republican Party’s vision for America. In other words, we’re out to “green up” the GOP... we at REP America are working hard to try to build a new generation of pro-conservation Republican voters at the same time that we’re working to ‘green-up’ the GOP today. And we’re showing the world that there are still some Republican elected officials who really and truly do have the courage to fight for clean air and water, protect endangered species and public lands, and try to prevent global warming...[I]ncreasingly, around the country, other REP America members are raising their voices... **in support of the Precautionary Principle** of trying to prevent future environmental degradation before it starts... I’m no expert on this subject, as I’ve already said. But I’ve done my share of reading about it for some time now, and I’ve come to believe that **the Precautionary Principle** is one of the soundest and most truly conservative concepts being put forward today. I believe it’s one that our elected officials--of both parties--ought to take to heart. And I’m not alone among Republicans who advocate it... **The Precautionary Principle is being promoted** to address-- and try to ward off in advance --a variety of looming health and environmental problems, including cancers caused by persistent bioaccumulative toxins, harm to both humans and wildlife from the genetic modification of crops, and global climate change...to name just three issues. And in dealing with all of these problems, it seems to me that precaution would be the most truly conservative position for this country to adopt” (emphasis added). Id.

²⁴⁶ See Samuel Loewenberg, “Old Europe’s New Ideas”, *Sierra Magazine* (Jan/Feb 2004), at: (<http://www.sierraclub.org/sierra/200401/europe.asp>). “By requiring industry to go green, the European Union is challenging the way America does business. Last summer, for example, a bipartisan coalition of northeastern states led by New York’s Republican governor George Pataki announced plans to create an emissions trading system to combat global warming—in direct defiance of White House policy. Thirteen states have mandated minimum percentages of their total electricity that must be produced from renewable energy sources. In California, the state legislature has enacted an EU-style ban on dangerous flame-retardants. New Jersey officials recently began seeking natural-resource damages from polluters; if they are successful, industrial giants like ExxonMobil and Lockheed Martin will have to go beyond cleaning up their contaminated sites and pay for polluted groundwater, lost recreational opportunities, and other costs to the public. And the city of San Francisco has become the first U.S. municipality to embrace the precautionary principle. If more and more states and cities adopt similar laws, polluters will have nowhere to go.” Id.

²⁴⁷ See William A. ‘Skip’ Stiles, Jr., “Background Paper On: Traceability, Segregation and Labeling GM Crops”, Presented at the German Marshall Fund of the United States U.S.-European Biotechnology Initiative Workshop 3 (Dec. 2001), at p. 31.

²⁴⁸ See Lawrence A. Kogan, “Looking Behind the Curtain: The Growth of Trade Barriers That Ignore Sound Science”, at pp. 68-72.

²⁴⁹ See Lawrence A. Kogan, “Enlightened Environmentalism or Disguised Protectionism: Assessing the Impact of EU Precaution-Based Standards on Developing Countries”, *National Foreign Trade Council* (April 2004), at pp. 40-64, at: ([http://www.nftc.org/default/white%20paper/riskreg3study404\(2\)Final.doc](http://www.nftc.org/default/white%20paper/riskreg3study404(2)Final.doc)).

²⁵⁰ “The law states ‘on and after January 1, 2008, a person may not manufacture, process, or distribute in commerce a product, or a flame-retarded part of a product, containing more than one-tenth of 1 percent of pentaBDE or octaBDE, by mass.’” “Precautionary Chemicals Policy Initiatives in the United States,” *Lowell Center for Sustainable Production* (Oct. 10, 2003), at 2, at:

(http://www.chemicalspolicy.com/downloads/Chemicals_Policy_Precaution.do). The law can be found at: (http://info.sen.ca.gov/pub/bill/asm/ab_0301-0350/ab_302_bill_20030724_enrolled.html).

²⁵¹ See “Keeping-Up with Additives”, *Plastic Technologies Online* (Dec. 2003), at: (<http://www.plasticstechnology.com/articles/kuw/add/ADD264.html>).

²⁵² “California Bans Use of Some Brominated Flame Retardants”, *NEMA EHS Briefs* Aug. 26, 2003, at: (http://www.nema.org/ehs/briefs/EHSBrief_August_26_2003_printer_version.html).

²⁵³ See “Enacted and Introduced PDBE Legislation – 2005) as of 3/1/05”, *National Caucus of Environmental Legislators*.

²⁵⁴ See “Electronic Waste Recycling Act of 2003 (SB 20)”, *California Integrated Waste Management Board*, at: (<http://www.ciwmb.ca.gov/Electronics/Act2003>).

²⁵⁵ Jenifer Guhl, “Impacts and Implications of New European Environmental Law on the U.S. High-Tech Industry”, *supra*, at 43, 48.

²⁵⁶ See Angie Morris, “Hazardous E-Waste”, Food for Life (Summer 2000), at: (<http://www.yesmagazine.com/14foodforlife/indicators.htm>).

²⁵⁷ “Recognizing the growing popularity of high-definition television and the increase in flat panel computer displays, the state anticipated that many people will be casting off their old TVs and computer monitors. The main component of a television and computer monitor display is the cathode ray tube (CRT), a device that is enmeshed in about six pounds of lead to reduce the electromagnetic radiation emissions.” *Id.*

²⁵⁸ See Dana Joel Gattuso, “Mandated Recycling of Electronics: A Lose-Lose-Lose Proposition”, for the Competitive Enterprise Institute (Feb. 1, 2005) at p. 18, citing Also, see National Caucus of Environmental Legislators, “Introduced Electronic Waste Legislation 2003-2004,” April 23, 2004, at (http://www.ncel.net/news_uploads/101/2003-2004bills-ewaste.update.doc).

²⁵⁹ See Public Laws of Maine, Second Special Session of the 121st, Chapter 661, H.P. 1402 – LD 1892, “An Act To Protect Public Health and the Environment by Providing for a System of Shared Responsibility for the Safe Collection and Recycling of Electronic Waste”, enacted as Sec. 1. Title 38 MRSA §1310-B. 1, 1609, 1610, at: (http://www.mainelegislature.org/legis/bills_121st/LD.asp?LD=1892); (http://www.mainelegislature.org/legis/bills_121st/billdocs/LD189201.doc),

²⁶⁰ Title 38, Chap. 16, Sec. 1610.5 and .6A(5).

²⁶¹ During 2003, a bill that would apply to electronic equipment was proposed to the Maine State legislature. Its objective was to phase-out all brominated fire retardants, lead, mercury, cadmium, hexavalent chromium and polyvinyl chloride (PVC) by 2006. This bill was subsequently amended to be a CRT landfill ban. There is now a new bill in the legislature to phase-out brominated fire retardants (BFRs), entitled ‘An Act To Reduce Contamination of Breast Milk and the Environment from the Release of Brominated Chemicals in Consumer Products’. Tim Greiner, “International Materials Restrictions”, at p. 16.

²⁶² “Bills to ban the use of PBDEs in all products by 2006 introduced in 2002 & 2003 (HB 5575 and HB 4406, respectively), failed to progress in the [Michigan State] legislature.” See Tim Greiner, “International Materials Restrictions”, Presented at the Coated Wire & Cable Supply Chain Meeting (Mar. 23, 2004), at 15-16, at:

(<http://networks.turi.org/content/content/download/1101/5317/file/InternationalMaterials%20RestrictionTimGreiner.pdf>).

²⁶³ These e-waste bills seek to phase out lead, cadmium, mercury hexavalent chromium, polyvinyl chloride (pvc) and brominated flame retardants (BFRs). *Id.*, at 15.

²⁶⁴ See Saskia Mooney, “Don’t Expect E-Waste and Cell Phone Recycling Proposals to Just Go Away”, Chemicals, Safety and Environmental Update (Spring 2005), Wiley, Rein & Fielding, LLP, at: (http://www.wrf.com/publication.cfm?pf=1&publication_id=12012); Dinesh C. Sharma, “California Passes Cell Phone Recycling Bill”, CNET News.com (Oct. 1, 2004), at: (http://news.com.com/Calif.+passes+cell+phone+recycling+bill/2100-1039_3-5392369.html).

²⁶⁵ “Sec. 1. 38 MRSA §1609 was enacted on April 21, 2004 and had an effective date of July 30, 2004. This new law “States an intent to ban decaBDE if a “safer, nationally available alternative is identified” as of January 1, 2008. The Department of Environmental Protection and the Department of Human Services, Bureau of Health must annually submit a report regarding the regulation and dangers of brominated flame retardants, including the availability of safer alternatives to decaBDE.” See “Enacted and Introduced PDDB Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators; “Public Laws of Maine, Special Second Session of the 121st”, at: (<http://janus.state.me.us/legis/ros/lom/lom121st/14pub601-650/pub601-650-33.htm>).

²⁶⁶ “Article 37 – Substances Hazardous or Acutely Hazardous to Public Health, Safety or the Environment, Title I – Substances Hazardous to the Environment”, at: (<http://public.leginfo.state.ny.us/menugetf.cgi?COMMONQUERY=LAWS>).

²⁶⁷ See § 37-0111 (1)(a) of Art. 37, Title I. *Id.*

²⁶⁸ See “Enacted and Introduced PDDB Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators; § 37-0103 (1)(a) and § 37-0111 (1)(a) of Art. 37, Title I. *Id.*

²⁶⁹ See “Enacted and Introduced PDDB Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators.

²⁷⁰ *Id.*; (http://www.capitol.hawaii.gov/hrscurrent/vol06_ch0321-0344/hrs0332d/hrs_0332d-0002.htm); (<http://www.capitol.hawaii.gov/site1/docs/searchhrs.asp?press1=docs&qu=brominated+flame+retardants>).

²⁷¹ “In 1998, the Washington Department of Ecology announced a state-wide phase out policy on persistent, bioaccumulative and toxic (PBT) chemicals, with the goal of eliminating PBT pollution. The program has designated nine PBTs, and included 13 more in the “PBT Working List” of chemicals on which to focus in future action plans.” See “Precautionary Chemicals Policy Initiatives in the United States,” Lowell Center

for Sustainable Production, at p. 2. **The larger aim of this program is to “mov[e] away from risk assessment and towards ‘precautionary approaches based on scientific data for addressing PBTs.’ It explicitly adopts the precautionary principle as one of the policy’s guiding principles:* ‘Most regulatory programs currently embody approaches that require agencies to quantify the problems caused by low levels of toxic chemicals before taking actions to prevent those effects. Consequently reasonable preventative measures are often delayed because scientists are unable to precisely define all of the complex interactions between toxic release and environmental danger. More *precautionary approaches* are needed to prevent the environmental harm associated with PBTs’” (emphasis added). See “Precautionary Principle”, at A Small Dose Of... (1/9/05), at (<http://www.asmalldoseof.org/precautionary/index.php>).

²⁷² See “Executive Order 040-01, Persistent Toxic Chemicals”, at: (http://www.governor.wa.gov/actions/orders/eoarchive/eo_04-01.htm)

²⁷³ See “Executive Order 040-01, Persistent Toxic Chemicals”, at: (http://www.governor.wa.gov/actions/orders/eoarchive/eo_04-01.htm)

²⁷⁴ HB 540, allowing “an income tax credit in the amount of fees paid to a recycler for the acceptance of electronic equipment turned in by the taxpayer. See Denise Griffin, “Environment, Energy and Transportation Program – Electronic Waste”, National Conference of State Legislatures (Feb. 2005), at: (<http://www.ncsl.org/programs/enviro/cleanup/elecwaste.htm>).

²⁷⁵ HB 1861, creating “an Electronic Waste Producer Responsibility Act... which holds the manufacturer responsible for the handling/recycling of discarded computers.”. *Id.*

²⁷⁶ Saskia Mooney, “Don’t Expect E-Waste and Cell Phone Recycling Proposals to Just Go Away”, *supra*.
²⁷⁷ *Id.*

²⁷⁸ See “Enacted and Introduced PDBE Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators; “Michigan Legislature - House Bill 4406 (2003), Public Act 562 of 2004 (Effective 1/3/2005), at: (<http://www.legislature.mi.gov/mileg.asp?page=getObject&objName=2003-HB-4406>); (<http://www.legislature.mi.gov/documents/2003-2004/publicact/htm/2004-PA-0526.htm>).

²⁷⁹ See “Legislative Counsel’s Digest”, at: (http://www.leginfo.ca.gov/pub/bill/asm/ab_0251-0300/ab_263_bill_20050208_introduced.html).

²⁸⁰ *Id.*; “Enacted and Introduced PDBE Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators.

²⁸¹ “Enacted and Introduced PDBE Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators.

²⁸² See “House of Representatives, 23rd Legislature 2005, State of Hawaii – H.B. 234 – A Bill For An Act”, at: (http://www.capitol.hawaii.gov/sessioncurrent/bills/hb234_.htm); “The Senate, Legislature 2005, State of Hawaii – S.B. 471, A Bill For An Act”, at: (http://www.capitol.hawaii.gov/sessioncurrent/bills/sb471_.htm).

²⁸³ *Id.* HB 234 was introduced on 1/24/2005, while SB471 was introduced on 1/30/2005, each in the respective Health & Judiciary Committees. See: “Enacted and Introduced PDBE Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators.

²⁸⁴ H.B. 1488, which is entitled, “AN ACT Relating to brominated flame retardants; adding a new chapter to Title 70 RCW; and prescribing penalties”, was “Referred to [the House] Committee on Natural Resources, Ecology & Parks” on 1/25/05. See: (<http://www.leg.wa.gov/pub/billinfo/2005-06/Htm/Bills/House%20Bills/1488.htm>). S.B. 5515, bearing the same title, was “Referred to [the Senate] Committee on Water, Energy & Environment” on 1/26/05. See (<http://www.leg.wa.gov/pub/billinfo/2005-06/Htm/Bills/Senate%20Bills/5515.htm>).

²⁸⁵ “New Section 3(1), *Id.*

²⁸⁶ *Id.*; New Section 4(1)(a).

²⁸⁷ S.B. 962 is entitled, “A Bill For An Act - Relating to brominated flame retardants; creating new provisions; and amending ORS 453.005, 453.085 and 453.995”. See (<http://www.leg.state.or.us/05reg/measures/sb0900.dir/sb0962.intro.html>).

²⁸⁸ *Id.*, at Summary.

²⁸⁹ See “Enacted and Introduced PDBE Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators.

²⁹⁰ *Id.* S.B. 424 was introduced in referred to the Senate Rules Committee on 2/16/05, while HB 2572 was reassigned to the House Health Committee on 2/24/05.

²⁹¹ See “Illinois General Assembly, Full Text of S.B. 0424”, at: (<http://www.ilga.gov/legislation/fulltext.asp?DocName=&SessionId=50&GA=94&DocTypeId=SB&DocNum=0424&GAID=8&LegID=17203&SpecSess=&Session=>); “Illinois General Assembly, Full Text of H.B. 2572”, at:

(<http://www.ilga.gov/legislation/fulltext.asp?DocName=&SessionId=50&GA=94&DocTypeId=HB&DocNum=2572&GAID=8&LegID=18516&SpecSess=&Session=>).

-
- ²⁹² See “Illinois General Assembly, Full Text of S.B. 0424”.
- ²⁹³ See “Illinois General Assembly, Full Text of H.B. 2572”, Sections 15(b) and 35.
- ²⁹⁴ *Id.*, Sections 20, 25 and 30.
- ²⁹⁵ See “HB 83 - Environment - Brominated Flame Retardants - Pentabrominated and Octabrominated Diphenyl Ether - Prohibition”, at: (<http://mlis.state.md.us/2005rs/billfile/hb0083.htm>); “Unofficial Copy of HB 83”, at: (<http://mlis.state.md.us/2005rs/bills/hb/hb0083t.pdf>); “Legislative Issues, Bill Positions – HB 83”, at: (http://www.mdchamber.org/leg_issues/HB83.htm).
- ²⁹⁶ “Legislative Issues, Bill Positions – HB 83”.
- ²⁹⁷ “Enacted and Introduced PDBE Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators.
- ²⁹⁸ See “HB 83 – History by Legislative Date”, at: (<http://mlis.state.md.us/2005rs/billfile/hb0083.htm>).
- ²⁹⁹ See “Minnesota State Legislature - HF 1299 Status in House for Legislative Session 84”, at: (http://www.revisor.leg.state.mn.us/revisor/pages/search_status/status_detail.php?b=House&f=HF1299&ssn=0&y=2005).
- ³⁰⁰ See “Minnesota State Legislature – H.F. No. 1299, as introduced – 84th Legislative Session (2005-2006), Subd.7”, at: (<http://www.revisor.leg.state.mn.us/bin/bldbill.php?bill=H1299.0&session=ls84>).
- ³⁰¹ See “Minnesota State Legislature – SF 1789 Status in Senate for Legislative Session 84”, at: (http://www.revisor.leg.state.mn.us/revisor/pages/search_status/status_detail.php?b=Senate&f=SF1789&ssn=0&y=2005).
- ³⁰² See “Enacted and Introduced PDBE Legislation – 2005) as of 3/1/05”, National Caucus of Environmental Legislators; “An Act Concerning the Ban of Polybrominated Diphenyl Ethers”, at: (<http://www.cga.ct.gov/2005/tob/s/2005SB-00785-R00-SB.htm>).
- ³⁰³ See “2005 Montana Legislature – Senate Joint Resolution No. 15”, at: (<http://data.opi.state.mt.us/bills/2005/billhtml/SJ0015.htm>).
- ³⁰⁴ *Id.*
- ³⁰⁵ *Id.*
- ³⁰⁶ New EU Directive 2003/15/EC of the European Parliament and of the Council (Feb. 27, 2003) amends prior EU Cosmetics Directive 76/768/EEC on the approximation of the laws of the Member States relating to cosmetic products.
- ³⁰⁷ See “Defeated California Cosmetic Bill Could Be Re-introduced Later This Year”, Beauty-on-line.com, (May 2004), at: (<http://www.beauty-on-line.com/>).
- ³⁰⁸ The amended AB 2025 is available at (www.leginfo.ca.gov).
- ³⁰⁹ *Id.*
- ³¹⁰ *Id.*
- ³¹¹ Lowell Center for Sustainable Production, at 3; “Senate No. 1268, The Commonwealth of Massachusetts, An Act For a Healthy Massachusetts: Safer Alternatives To Toxic Chemicals, at: (<http://www.state.ma.us/legis/bills/st01268.htm>); “S-1268 & H-2275 An Act for a Healthy Massachusetts: Safer Alternatives to Toxic Chemicals”. During April 2004, the Healthy Alliance lobbied the Massachusetts House of Representatives to adopt a bill that would fund the Toxic Use Reduction Institute (TURI) to conduct an analysis of safer alternatives to ten of the worst toxic chemicals. See “Clean Water Action Massachusetts”, at: (<http://www.cleanwateraction.org/ma/aht/action.html>).
- ³¹² The Healthy Alliance is promoted by Clean Water Action, an environmental advocacy group itself comprised of a network of state level nongovernmental organizations.
- ³¹³ The request originated from the California Senate Committee on Environmental Quality and the Assembly Committee on Environmental Safety and Toxic Materials. See “Free Access to REACH Compliance Software to be Available – CA Investigating Merits of REACH”, Flashpoint (May 4, 2004), at: (http://www.imakenews.com/flashpoint/e_article000256003.cfm).
- ³¹⁴ See Michael P. Wilson, Abstract #92060, “Toward a Comprehensive Approach to Chemicals Policy: Developments in California”, prepared by the Center for Occupational and Environmental Health, University of California, Berkeley, for presentation at the recent 132nd Annual Meeting of American Public Health Association, scheduled during Nov. 6-10, 2004, at: (http://apha.confex.com/apha/132am/techprogram/paper_92060.htm).
- ³¹⁵ *Id.*
- ³¹⁶ See Joel Tickner, Abstract #91110, “Reform of Toxic Chemicals Regulation: The Current State of Affairs”, prepared by the Lowell Center for Sustainable Production, University of Massachusetts, for presentation at the recent 132nd Annual Meeting of American Public Health Association, scheduled during Nov. 6-10, 2004, at: (http://apha.confex.com/apha/132am/techprogram/paper_91110.htm). Currently, the state of Massachusetts has a successful Toxics Use Reduction Act (“TURA”) which has been in effect for more than 10 years. Pursuant to TURA, Massachusetts firms that use more than a certain amount of

specified toxic chemicals must (a) examine their toxics use and evaluate alternatives, and (b) report the quantities of toxic chemicals used or generated. *See*

(<http://turadata.turi.org/WhatIsTURA/OverviewOfTURA.html>).

³¹⁷ *See* “Pew Initiative on Food and Biotechnology Factsheet – Legislative Tracker 2003”, at: (<http://pewagbiotech.org/resources/factsheets/legislation/index.php?Year=2003&TopicID=2>).

³¹⁸ *Id.*

³¹⁹ *Id.*

³²⁰ *See* “Pew Initiative on Food and Biotechnology Factsheet – Legislative Tracker 2003”, at: (<http://pewagbiotech.org/resources/factsheets/legislation/index.php?Year=2003&TopicID=7>).

³²¹ *Id.*

³²² *Id.*

³²³ *See, e.g.*, Directive 2004/35/CE of the European Parliament and of the Council on Environmental Liability With Regard to the Prevention and Remedying of Environmental Damage, Apr. 21, 2004, at: (http://europa.eu.int/eurex/pri/en/oj/dat/2004/l_143/l_14320040430en00560075.pdf). It is intended to “establish a framework of environmental liability based on the ‘polluter’s pay principle’ to prevent and remedy environmental damage.” *See* Article 1. This directive creates “a generalized offense of environmental pollution governed by a strict (no fault) liability regime. Environmental damage include[s] damage to [protected] species. . .natural habitats. . .[and] water[way]s. . .and land contamination which causes significant risk of harming human health. . .” *See* “‘Polluter Pays’ Directive Finally Agreed”, Environment Zone, Feb. 21, 2004, at: (<http://lawzone.thelawyer.com/cgi-in/item.cgi?id=109329&d=204&h=243&f=209>).

³²⁴ *See* “Pew Initiative on Food and Biotechnology Factsheet – Legislative Tracker 2003”, at: (<http://pewagbiotech.org/resources/factsheets/legislation/index.php?Year=2003&TopicID=4>).

³²⁵ *See* Hawaii HB 1033.

³²⁶ *See* Massachusetts SB 1912, holding “*seed manufacturers* liable for any damages resulting from organisms they’ve modified for use as food, unless those damages are the result of another party (e.g., the planting farmer) not complying with any reasonable safety precautions outlined in signed agreements.

³²⁷ *See* Missouri HB 457. It would “establish *farmer liability* for harm to human health, safety and environment that results from intentionally or negligently failing to follow directions from seed companies.”

³²⁸ *See* Montana HB 522, which imposes *seed company* liability.

³²⁹ *See* North Dakota SB 2304. It would impose liability for damages from cross-pollination upon the *seed company* (i.e., the technology provider) provided the damaged farmer made a good faith effort to grow GM-free crops. However, no liability would be imposed where the ‘contamination’ resulted from something over which the company had no control (e.g., a contaminated seed source).

³³⁰ *See* New York AB 1911, which imposes liability on the *plant/animal manufacturer* for damages suffered by farmers.

³³¹ *See* Vermont HB 350. It would not only allow farmers who suffer damages from cross-pollination to sue (company or other farmers?), but also would impose legal responsibility on persons “who omit material information regarding the genetic characteristics of G[M] products.”

³³² *See* Vermont S. 18. In addition to “its guilty-until-proven-innocent assumptions”, there’s even talk about a statewide ban on biotech crops. . .Much of the impetus for this legislation comes from Vermont’s organic growers whose numbers have more than tripled in the last five years. Some of them say they’re worried about pollen from biotech crops drifting into their fields and mixing with their non-biotech plants – and thereby jeopardizing their status as certified organic farmers. . .According to the USDA [however,] no organic farmer anywhere in the U.S. has ever lost his or her USDA organic certification because of biotechnology.” *See* Terry Wanzek, “Shining the Light in Vermont”, Truth About Trade (Feb. 25, 2005) at: (<http://www.truthabouttrade.org/article.asp?id=3405>).

³³³ *See* Alex Avery, “Codifying Corn Pollution in the Twilight Zone”, Center for Global Food Issues, Hudson Institute (Feb. 8, 2005), at: (http://www.cgfi.org/materials/articles/2005/feb_08_05.htm).

³³⁴ *See* Vermont S. 18. In addition to “its guilty-until-proven-innocent assumptions”, there’s even talk about a statewide ban on biotech crops. . .Much of the impetus for this legislation comes from Vermont’s organic growers whose numbers have more than tripled in the last five years. Some of them say they’re worried about pollen from biotech crops drifting into their fields and mixing with their non-biotech plants – and thereby jeopardizing their status as certified organic farmers. . .According to the USDA [however,] no organic farmer anywhere in the U.S. has ever lost his or her USDA organic certification because of biotechnology.” *See* Terry Wanzek, “Shining the Light in Vermont”, Truth About Trade (Feb. 25, 2005) at: (<http://www.truthabouttrade.org/article.asp?id=3405>).

³³⁵ *See* “Farmers in Three U.S. States Seek Legal Protection from Pollution from GE Crops”, Organic Consumers Association (2/7/05), at: (<http://www.organicconsumers.org/ge/gelaw20705.cfm>). “We’ve done our homework for Vermont’s farmers and our bill is strong and clean. We must make sure that farmers are

not bearing the burden for the manufacturers who are marketing a product that is designed to contaminate," stated Amy Shollenberger, policy director of Rural Vermont. 'I am encouraged by the strong support for S.18.'" *Id.*

³³⁶ See Alex Avery, "Codifying Corn Pollution in the Twilight Zone", Center for Global Food Issues, Hudson Institute (Feb. 8, 2005), at: (http://www.cgfi.org/materials/articles/2005/feb_08_05.htm). "The USDA rules clearly state that organic 'does not mean GM-, GMO-, or GE-free'. On the USDA website, the NOP states that as of mid-January 2005, not a single organic crop or farmer has ever lost organic status due to the presence of biotech-derived materials. *Id.*, See, also: (<http://www.ams.usda.gov/nop/Q&A.html>).

³³⁷ In Montana, wheat growers have strongly supported Senate Bill 218, intended to protect farmers from the liabilities associated with GM wheat contamination. See "Farmers in Three U.S. States Seek Legal Protection from Pollution from GE Crops", *supra*.

³³⁸ "Farmers in North Dakota are equally concerned about the affects on grain elevators. 'Losses to a country elevator for a 400,000 bushel train load of wheat to a west coast port could equal a half-million dollar loss of milling grade, transportation costs, and railroad charges for a train load of wheat sitting idle at the port," said Todd Leake, a wheat farmer from Grand Forks County, N.D., and member of the Dakota Resource Council. 'These losses would bankrupt these country elevators.'" *Id.*

³³⁹ See "Vermont Panel Rejects GMO Bill", (Vermont) Times Argus-Leader (5/5/05), at: (<http://pewagbiotech.org/newsroom/summaries/display.php3?NewsID=881>).

³⁴⁰ *Id.*

³⁴¹ See "CA GM Bill on Hold", Truth About Trade and Technology, May 6, 2005, in Pew Initiative on Food and Biotechnology, at: (<http://pewagbiotech.org/newsroom/summaries/display.php3?NewsID=882>).

³⁴² *Id.*

³⁴³ *Id.*

³⁴⁴ See Arty Mangan, "Tears, Biopharm Rice & a Free California", Organic Consumers Association (Mar. 17, 2005), at: (<http://www.organicconsumers.org/ge/freeca031705.cfm>), discussing "AB2622 (also known as the California Rice Certification Act)," and the role of the Advisory Board formed by the regulation in granting Ventria the approvals to grow pharmaceutical rice.

³⁴⁵ *Id.*

³⁴⁶ See "Growers Leery of Modified Rice", Arkansas Democrat Gazette (2/1/05), at: Pew Initiative on Food and Biotechnology.

³⁴⁷ *Id.*

³⁴⁸ *Id.*

³⁴⁹ A similar situation had occurred in Colorado during May 2003. "Farm organizations and other concerned groups in Colorado have called on Gov. Bill Owens to declare an immediate moratorium on the introduction of biopharmaceutical crops (conventional food crops spliced with pharmaceutical producing substances, such as hormones and proteins) into the state until a public process is established to evaluate their risks and they are proven safe..." See "Colorado Biopharm Briefing", Cropchoice News (May 11, 2003), at: (<http://www.cropchoice.com/leadstryaf21.html?recid=1647>).

³⁵⁰ See Bill Lambrecht, "Biotech Firm Puts Off Rice Crop in Missouri", St. Louis Dispatch (April 28, 2005), cited in Organic Consumers Association, at: (<http://www.organicconsumers.org/ge/missouririce050305.cfm>).

³⁵¹ *Id.*

³⁵² See "Growers Leery of Modified Rice", Arkansas Democrat Gazette (2/1/05), at: Pew Initiative on Food and Biotechnology. According to "Rick North, who directs the Oregon group [Physicians for Social Responsibility]'s Campaign for Safe Food... No state has passed a biopharm law, but efforts have been made in Colorado, Hawaii, Massachusetts, Texas and Vermont..." *Id.*

³⁵³ See Niki Sullivan, "Senate Considers Biopharm Crops Ban", Associated Press (April 8, 2005), in the Convallis Gazette-Times, at: (<http://www.gazettetimes.com/articles/2005/04/09/news/oregon/sat03.txt>). "Significant activity outside Oregon indicates that states or localities may pass laws restricting GE crops. Massachusetts, Texas and Colorado all proposed legislation in 2003 restricting biopharm crops and California took action against GE biopharm rice. Also, the Congressional Research Service reviewed Vermont's state-wide moratorium bill on all GE crops in August 2004 and expressed its opinion that the bill would stand up to any Constitutional challenge. The opinion is specific to Vermont, but the issues regarding state authority are similar." See "SB 570 – The Biopharm Bill", Oregon Physician for Social Responsibility", at: (http://www.oregonpsr.org/csf/bill_qa.doc).

³⁵⁴ *Id.*

³⁵⁵ See: "Agribusiness Targets State Legislators to Pre-empt Local Laws on Seeds", Natural Newswire (April 2004), at: (http://www.naturalnewswire.com/2005/04/agribusiness_ta.html).

³⁵⁶ See: “Sonoma Country to Put Biotech Vote to Voters”, Associated Press (March 2, 2005), cited in Pew Initiative on Food and Biotechnology, at:

(<http://pewagbiotech.org/newsroom/summaries/display.php3?NewsID=842>).

³⁵⁷ *Id.*

³⁵⁸ *Id.*

³⁵⁹ See Kate Campbell, “Anti-biotech Measures Defeated by Voters”, California Farm Bureau Federation (Nov. 10, 2004), at:

(<http://www.cfbf.com/agalert/AgAlertStory.cfm?ID=163&ck=0777D5C17D4066B82AB86DFF8A46AF6F>)

³⁶⁰ HF 642 passed the House by a vote of 70-27, and the Senate by a vote of 33-16, on 4/6/05. See “2005 Seed and Plant Law Preemption Tracker, Updated as of 5/11/05”, Environmental Commons website, at: (<http://www.environmentalcommons.org/gmo-tracker.html>).

³⁶¹ See “US States Passing Laws to Block Local GMO-Free Ordinances”, Organic Consumers Association (April 2005), at: (<http://www.organicconsumers.org/biod/gmofreepreempt32905.cfm>), “Language in all the seed bills is similar, containing words such as “registration, labeling, sale, storage, transportation, use, and notification of use: of see. NO bills mention “genetically modified,” or “biotechnology” though Idaho’s House Bill 38 states that local regulations “are often not based on principles or good science,” a thinly-veiled reference to Mendocino County’s rejection of GM crops.” *Id.*

³⁶² During “February [2005], Georgia passed Senate Bill 87 that prohibits local governments from regulating ‘seeds.’” *Id.*

³⁶³ During “December [2004], Pennsylvania passed House Bill 2387, which states, “no ordinance or regulation of political subdivision or home rule municipality may prohibit or in any way attempt to regulate any matter relating to the registration, labeling, sale, storage, transportation, distribution, notification of use or use of seeds.” *Id.*

³⁶⁴ *See, supra.*

³⁶⁵ HB 38 was passed on 3/23/05, by an Idaho House vote of 34-0 and an Idaho Senate vote of 65-3-2. See: “2005 Seed and Plant Law Preemption Tracker, Updated as of 5/11/05”.

³⁶⁶ During “early March [2005], the North Dakota legislature passed a similar bill, Senate Bill 2277, by a 69 to 25 vote. Ken Bertsch, seed commissioner with the North Dakota State Seed Department, acknowledged that the bill aims to prevent passage of Mendocino-type ordinances. “There is concern that what happened in California could happen here, and that absent this type of legislation there could develop a patchwork of different ordinances that could be difficult to enforce,” he said.” *Id.*

³⁶⁷ SB 152 was passed on 2/25/05, by a Senate vote of 31-2 and a House vote of 68-0. See: “2005 Seed and Plant Law Preemption Tracker, Updated as of 5/11/05”.

³⁶⁸ HB 2341, “a Preemptive Fertilizer Bill amended to include seeds”, was passed on 4/1/05, by a House vote of 123-0 and a Senate vote of 39-0. *Id.*

³⁶⁹ HB 1302 was passed on 3/25/05, by a House vote of 86-9 and a Senate vote of 39-10. *Id.*

³⁷⁰ SB 1282 was passed on 4/22/05, by a House vote of 57-2 and a Senate vote of 30-0. *Id.*

³⁷¹ HB 1471 was passed on 4/18/05, by a House vote of 96-0 and a Senate vote of 45-0. *Id.*

³⁷² SB 580 was introduced on 3/17/05 and was passed by both houses on 4/16/05. *Id.*

³⁷³ SB 858 and HB 1717 expressly seek to “ensure uniform health and safety standards within the State of Florida.” *Id.*

³⁷⁴ See: SB 631 and H 671. *Id.*

³⁷⁵ HB 66 was passed by the Ohio House and is currently being reviewed by the Ohio Senate. *Id.*

³⁷⁶ HB 2313 and SB 1091 are currently under review. *Id.*

³⁷⁷ The following states have imposed CO2 reporting requirements: California, Illinois, Maine, Maryland, New Hampshire, New Jersey, Vermont, and Wisconsin. See Joseph L. Bast, James M. Taylor and Jay Lehr, “State Greenhouse Gas Programs: An Economic and Scientific Analysis”, Heartland Policy Study #101, The Heartland Institute (Feb. 2003).

³⁷⁸ States have endeavored to regulate CO2 in the same manner they have regulated genuine ‘air pollutants’ such as sulfur dioxide and nitrous oxide. “However, it is important to remember that CO2 emissions are different in very fundamental ways from air pollutants such as SO2 and NOx” (emphasis added). See Northeast Regional Greenhouse Gas Coalition, “Comments on RGGI Draft Discussion Piece on Offsets”, presented to the RGGI Staff Working Group (May 18, 2004), at pp. 2-3, at: (http://www.rggi.org/docs/rggi_offsets.pdf).

³⁷⁹ The following states have imposed some kind of GHG emissions cap: Massachusetts, New Hampshire, New Jersey, and Oregon. *Id.*

³⁸⁰ See: Environmental Defense Fund, “States and Climate Change” (6/25/03), at: (<http://www.environmentaldefense.org/article.cfm?contentid=2863>).

³⁸¹ Actually the earlier bill, Assembly Bill 5577, had “provide[d] for the regulation of emissions of Nitrogen Oxide, Sulfur Dioxide and Carbon Dioxide (CO₂) from electric generators of 15 MW capacity or larger. See “USEPA Global Warming States Actions List”, at:

(<http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ActionsStateLegislativeInitiatives.html>).

³⁸² A01570, “An Act to Amend the Environmental Conservation Law in Relation to Regulating Emissions of Nitrogen Oxide, Sulfur Oxide, Carbon Dioxide and Mercury”. “Covering the same power plants, the bill calls for the adoption of regulations that would require the reduction of carbon dioxide emissions (i.e., via imposition of a CO₂ emissions cap) to an amount that is 7% less than a plant’s total 1990 CO₂ emissions, by January 1, 2007.” See “New York State Assembly Bill Summary – A01570”, at:

(<http://assembly.state.ny.us/leg/?bn=A01570>).

³⁸³ See “About RGGI; Goals and Guiding Principles”, at: (<http://www.rggi.org/about.htm> ; <http://www.rggi.org/goals.htm>).

³⁸⁴ See Sons of Kyoto: Greenhouse Gas Legislation in the States, Updated: September 27, 2004, at: (<http://www.alec.org/viewpage.cfm?pgname=5.1046>). See, also “States Take Independent Action On Clean Air Plans,” Greenwire (July 8, 2004).

³⁸⁵ See Raab Associates, Ltd., “Regional Greenhouse Gas Initiative Stakeholder Group Process Ground Rules for 4/2/04 Meeting – Purpose and Objectives” (3/25/04).

³⁸⁶ See Jim McConnach, Janet Ranganathan, Scott Rouse, Thomas Baumann and Namat Elkouche, “Plans and Programs For GHG Reductions, Removals and Trading”, PowerGen International (Dec. 1, 2004), at pp. 4 and 8, at: ([http://www.energy-efficiency.com/atWork.nsf/793a1cdc81c31efb85256d18000dcf4e/b70e9d33e91d14ea85256f8600011ae5/\\$FILE/ghgReduction.pdf](http://www.energy-efficiency.com/atWork.nsf/793a1cdc81c31efb85256d18000dcf4e/b70e9d33e91d14ea85256f8600011ae5/$FILE/ghgReduction.pdf)).

³⁸⁷ According to Kenneth Colburn, Executive Director for the Northeast States for Coordinated Air Use Management (NESCAUM) and as reported by the Associated Press, “In some states the plan won't even need legislative approval, but could be enacted via executive regulations, he said. See “Some States Flirt With Europe on Carbon Controls”, Associated Press (12/16/04), reported in USA Today at: http://www.usatoday.com/weather/resources/climate/2004-12-16-states-climate_x.htm).

³⁸⁸ “Given the extent and intensity of state-level activity aimed at reducing carbon dioxide emissions, the EU should organize two conferences on greenhouse emissions. These conferences should be targeted specifically at state officials, both elected leaders, (governors and attorneys general) and professional state level civil servants...*The purpose of such conferences would be to acquaint state officials with the EU’s programs in the area of climate change policy and for EU officials to become more knowledgeable about state initiatives. Subsequent to those two conferences, the EU should propose that a US-EU Climate Change Forum be established. Such a Forum should include participants who have not been included in the New Transatlantic Agenda dialogue in any significant fashion...While the federal government should participate in the Forum, it is critical that the states and the professional associations of state officials involved in the climate change policy arena be very strongly represented.* The focus should not be on the Kyoto Protocol but rather on the outcomes associated with Kyoto—i.e. the reduction of greenhouse gases, carbon dioxide emissions in particular. [In] [c]onclusion[,] [t]o set up a transatlantic Climate Change Forum along the lines discussed here, the Commission would need to acknowledge that the US is truly a federal system in which state governments play important roles in environmental protection. The US federal government would need to acknowledge the key role of the states as well” (emphasis added). See Alberta M. Sbragia, “US-EU Relations and Climate Change: The Need for Institutionalization”, prepared for the CSIS Think Tank Summit, titled “The Future of US-EU-NATO Relations: After the Cold War and Beyond the War in Iraq”, at pp. 4-5, at: (http://www.csis.org/zbc/tts_papers.htm); (<http://www.csis.org/zbc/sbragia.pdf>).

³⁸⁹ “[T]he EU has to recognize that political power in the US is not found exclusively in Washington. The US is in fact a federal system in which state governments are able to exercise considerable latitude in legislation as well as implementation. *In the field of climate change policy, the states have in reality been leading the way.* For those with a historical memory, the role of the states now on climate change recalls the role of the states in social policy in the 1920s and early 1930s. Essentially, states are experimenting with policies which are custom tailored to both individual state needs and governance structures” (emphasis added). *Id.*, at pp. 2-3.

³⁹⁰ “Two days of meetings between the EU Troika and key decision-makers on Capitol Hill have provided a new opening for EU-US co-operation on climate change. The EU troika, represented by Mr Lux, Minister of the Environment of Luxemburg, Lord Whitty, representing the future British presidency and Commissioner Dimas held extensive talks *with Paula Dobriansky*, chief US negotiator on climate change and a number of key US policy-makers including *James Connaughton*, chair of the White House Council on Environment Quality. Both sides agreed that climate change presented a major challenge for policy makers now and in the future” (emphasis added). See “Commissioner Dimas Hopeful About New Phase in EU-US Relations on

Climate Change”, Europa Press Release IP/05/463 (4/20/05), at: (<http://europa.eu.int/rapid/pressReleasesAction.do?reference=IP/05/463&format=HTML&aged=0&language=EN&guiLanguage=en>). See, also “EU-US Climate Change Talks Make Headway”, Sustainable Development, Euractiv, at: (<http://www.euractiv.com/Article?tcaturi=tcm:29-138406-16&type=News>).

³⁹¹ “Europe’s Emissions Trading Scheme is unlikely to lead to a reduction in carbon dioxide emissions, according to a new report issued Monday by Global Insight. According to the economic analysis group, ‘oil and gas prices are at levels at which coal remains highly competitive, even taking into account current CO2 prices’. The report focused on the power sector in Western Europe and concluded that, based on current estimates and forecasts of CO2 prices, power sector emissions are likely to remain unchanged from levels in 2004. The report also pointed out that forward coal prices are falling faster than forward gas prices, which may result in even higher emissions as power generators continue to burn cheaper coal during Phase One (2005-2007) of the ETS.” See “EU ETS ‘Unlikely’ to Reduce CO2 Emissions, Says Report”, Platts Emissions Daily (Feb. 15, 2005), at:

(<http://www.platts.com/Electric%20Power/Resources/News%20Features/emissionsmarket/#8>).

³⁹² This economic information was revealed with hesitance by RGGI government stakeholders at the recent May 18, 2005 RGGI public stakeholder meeting that took place in Boston, Massachusetts. This author and his co-director actively participated at such meeting in the name of the Institute for Trade Standards and Sustainable Development (ITSSD).

³⁹³ See, e.g., “Correspondence dated November 17, 2004, from John G. Holsapple, Director Environmental Energy Alliance of New York to Karl Michael, Senior Project Manager, New York State Energy Research & Development Authority, at: (<http://www.rggi.org>).

³⁹⁴ See Northeast Regional Greenhouse Gas Coalition, “Comments on RGGI Modeling”, presented to Karl Michael, NYSERDA (March 12, 2004).

³⁹⁵ “Investment bank UBS Warburg believes the European Emission Trading Scheme will push long-term electricity prices up 30%, the bank said in a note Tuesday. The bank said the price of carbon dioxide allowances was already reflected in electricity prices in competitive generation markets, with UBS estimating the current carbon premium to be about Eur2.00-3.00/MWh, moving to Eur4.00-5.00/MWh in the summer as lower loads push coal to the margin. UBS said it expected the premium to grow further from 2008. ‘We have modeled the marginal cost of CO2 abatement for 2005-2015 and forecast flat CO2 prices for the next one to two years, signaling no significant additional electricity price impact in the short term,’ said UBS. However, it forecast CO2 prices to gradually increase from 2008, reaching the “end-game” equilibrium in 2013-15... The bank added that price increases were expected to directly feed through to improved margins as long as generators receive most of the allowances they need for free... Furthermore, UBS expects northern European utilities, in particular German and Czech utilities, to benefit more than southern European utilities. ‘We think it is more likely that the CO2 price will be internalized into electricity prices in those markets, and we expect compliance costs to be lower,’ said UBS” (emphasis added). See “European Emissions Trading Scheme to Push Long-Term Electricity Prices Up 30%; UBS Warburg”, Platts Emissions Daily (Feb. 16, 2005), at:

(<http://www.platts.com/Electric%20Power/Resources/News%20Features/emissionsmarket/#8>).

³⁹⁶ “It will be ‘ambitious, if not impossible’ to make legally binding changes to the European Union’s emissions trading scheme before the second phase starts on Jan 1, 2008, European Commission environment department director of air and chemicals, Jos Delbeke, said ... ‘The national allocation plan process has to be rethought to ensure a level playing field both environmentally and economically,’ said Delbeke. ‘We might need to take some tough decisions for 2012, but I doubt if we can do much for the next round (2008-12).’ He said the key elements in the NAPs debate included the state of the internal EU energy market, business as usual forecasts, consistency with Kyoto targets and state aid. *Delbeke’s main concern was that the NAPs were not harmonized across the 25 EU members. ‘I’m frightened by the degree of complexity creeping in with each NAP we receive,’ he said. He recognized that member state governments were under pressure from national lobbyists, but there was a danger of making the NAPs so complicated that the ETS would not work well*” (emphasis added). See “Flawed Allocation Process Can’t Be Fixed by 2008: EC”, Platts Emissions Daily (Feb. 18, 2005), at:

(<http://www.platts.com/Electric%20Power/Resources/News%20Features/emissionsmarket/#8>).

³⁹⁷ See, discussion, *infra*, “Indirect Efforts to Reform U.S. Federal Law - State Attorneys General Lawsuits”.

³⁹⁸ For example, the Europeans are advising RGGI government stakeholders on the issues of GHG allowances, allocations and offset mechanisms. See “Allocation Under the European Union Emissions Trading System”, RGGI Stakeholder Workshop (Boston, Oct. 14, 2004), by Olivia Hartridge, of the European Commission, DG Environment, at: (http://www.rggi.org/docs/hartridge_pres_10_14_04.pdf); “Dutch Lessons as GHG Buyer”, (June 25, 2004), by Maurits Henkemans, Netherlands Ministry of Economic Affairs, at: (http://www.rggi.org/docs/maurits_presentation_6_24_04.ppt). Furthermore, the

RGGI website lists as one of several resources, “The European Union’s Climate Change Program”, at: (<http://europa.eu.int/scadplus/leg/ens15009.htm>). See, also, the discussion, *infra*.

³⁹⁹ See Joseph Kruger and William A. Pizer, “Regional Greenhouse Gas Initiative: Prelude to a National Program? – Exploring International Linkages”, *Goings On*, Resources For the Future (Winter 2005, Issue #156) at p.5, at: (http://www.rff.org/rff/Documents/RFF_Resources_156_goings.pdf); (http://www.rff.org/rff/Documents/RFF_Resources_156.pdf).

⁴⁰⁰ See: Hitomi Kimura, “How to Link Japanese ETS With Others - US-Japan Workshop on Local Initiatives”, The Institute of Global Environment and Society, Inc. (IGES) (3/25/05), at pp. 6, 8 and 9, at: ([http://www.ccap.org/domestic/srt05presentations/\(Hitomi_Kimura\)_Linking_Japanese_ETS_with_others.pdf](http://www.ccap.org/domestic/srt05presentations/(Hitomi_Kimura)_Linking_Japanese_ETS_with_others.pdf)); Institute for Global Environment and Society”, at: (<http://www.iges.org/aboutiges.html>).

⁴⁰¹ They apparently are not being fully candid. “The initiative so far has been limited to the 11 original states because their governments have a history of working together, *including in litigation against the federal government and Midwestern states on air quality issues*”, Crotty said” (emphasis added). See “Northeast U.S. Emissions Trading Scheme Could Serve as Model for National System”, BNA Environment Reporter (March 29, 2004), at:

(<http://subscriber.bna.com/SAMPLES/ecb.nsf/0/bfde82e9101da86485256e63000431bf?OpenDocument>),

⁴⁰² According to the Associated Press, “Colburn questioned the need for federal authorization, saying *any trans-Atlantic trades would be pure commercial transactions, not government-to-government*” (emphasis added). See “Some States Flirt With Europe on Carbon Controls”, AP (12/16/04),

⁴⁰³ See Kyle W. Danish, “The Effect of the Kyoto Protocol on U.S. Companies”, Trends, Volume 36, No.4, March/April 2005. ©2005, American Bar Association, at: (<http://www.vnf.com/content/articles/trends0405.pdf>).

⁴⁰⁴ And, of course, there are also the Wall Street opportunists who have quietly lobbied Governor Pataki to base such an exchange in New York because they wish to unseat London as the global leader in what is being touted as a potential multibillion-dollar “carbon trading” market. The AP, for example, interviewed Kenneth Colburn during the Kyoto Conference of the Parties Meeting in Buenos Aires, Argentina this past December 2004. “For one thing, New York is seeing London take the lead in ‘carbon trading’, which may balloon into a multibillion-dollar market. ‘We’re missing out on this economic opportunity,’ he said.” See “Some States Flirt With Europe on Carbon Controls”, Associated Press (12/16/04).

⁴⁰⁵ “...Erin Crotty, [former] commissioner of the New York State Department of Environmental Conservation, said March 9 [the] emissions trading market being developed by 11 northeastern states *could serve as the model for a national system in the United States...*” (emphasis added). See, “Northeast U.S. Emissions Trading Scheme Could Serve as Model for National System”, BNA Environment Reporter (March 29, 2004).

⁴⁰⁶ “...After the cap-and-trade program for power plants is implemented, the states may consider expanding the program to other kinds of sources... The program will be expandable and flexible, permitting other states to seamlessly join in the initiative when they deem it appropriate.” See “About RGGI; Goals and Guiding Principles, *supra*.

⁴⁰⁷ “[T]he Northeast region also has *a close working relationship with California, which is undertaking efforts with Western states on a greenhouse gas emissions trading market...*” (emphasis added). See “Northeast U.S. Emissions Trading Scheme Could Serve as Model for National System”, *supra*. The list of trading states may grow. Washington, Oregon and California, jointly developing plans to control carbon dioxide, are studying the possibility of carbon trading.” See: “Some States Flirt With Europe on Carbon Controls”, AP (12/16/04).

⁴⁰⁸ See discussion, *infra*.

⁴⁰⁹ “The action plan clearly states the goal for RGGI and also establishes guiding principles for the program design, including: emphasizing uniformity across the participating states; building on existing successful cap-and-trade programs; *ensuring that the program is expandable and flexible, allowing other states or jurisdictions to join in the initiative...*” (emphasis added). See Erin M. Crotty and Franz T. Litz, “The Regional Greenhouse Gas Initiative: Northeast States Cooperate to Cap Carbon Dioxide Emissions From Power Plants”, *Sustainable Development, Ecosystems and Climate Change Committee Newsletter*, American Bar Association (Vol. 7., No. 3 June 2004), at p. 7 and 9, at: (<http://www.abanet.org/envirom/committees/climatechange/newsletter/jun04/sustainable0604.pdf>); “Once the program is fully operational... *there is no reason why it could not be extended to other states or other emissions trading markets that are developing in Canada and the European Union...*” (emphasis added). See

“Northeast U.S. Emissions Trading Scheme Could Serve as Model for National System”, *supra*, quoting former NYS Department of Environment Conservation Commissioner, Erin Crotty.

⁴¹⁰ The New England Governors/Eastern Canadian Province Initiative had previously called for the “[c]reation of a *regional emissions registry*...[for the purpose of ensuring]...a uniform, coordinated basis for emissions banking and trading...[and]...to gain experience in certifying credits and trading within the geographic region.” See Brian M. Jones “Emerging State and Regional GHG Emission Trading Drivers” M.J. Bradley & Associates, Inc., (EUEC 2002), at: (<http://www.mjbradley.com/documents/EUEC1.pdf>). RGGI government stakeholders once again discussed the establishment of a regional body at the May 19, 2005 RGGI public stakeholder meeting in Boston, Massachusetts. Apparently concerned that the existence of a ‘*regulatory body*’, might trigger potential interstate commerce clause violations, they suggested that any regional body be structured as a non-profit organization comprised of board members consisting of the *regulatory* representatives from the different participating RGGI states. They also suggested that such a body would serve merely a technical advisory/*implementation/oversight function*. For example, it would *track emissions registrations, allowances, credits and offsets*. It is arguable, however, that such a regional body, despite its appearance, would, in actuality, be performing practically the same implementation and oversight functions ordinarily performed by state and federal *regulatory bodies*.

⁴¹¹ “RGGI will use agreed rules combined with mutual recognition through bilaterals.” See Jonathan Pershing, “Linking Trading Schemes: Dealing with Non-Parties”, IEA-IETA-EPRI 4th Annual Workshop on GHG Trading - Paris, World Resources Institute (10/4/04), at p. 18, at: (<http://www.iea.org/textbase/work/2004/ghg/presentations/pershing.pdf>).

⁴¹² “An offset represents an emission reduction obtained outside of a well-defined cap-and trade program that can then be used to “offset” increased emissions under the cap. Offsets offer vast potential to reduce the costs and expand the incentives associated with an emissions trading system. Relatively cheap reductions outside the cap can be substituted for more expensive reductions under the cap, saving money while maintaining a given level of overall (capped and uncapped) emissions. Wherever offsets are allowed, they extend the reach of a cap-and-trade program by encouraging reductions by sectors and players beyond the capped entities... Maurits Henkemans (Finance Ministry, Netherlands) noted that the Dutch government decided in 1998 that 50% of its Kyoto commitment would be met by government purchases of *offsets*—and those *have turned out to be 4-8 times cheaper than domestic reductions... for trading programs focused on the power sector—or even large point sources of carbon dioxide more generally—offsets offer vast potential to reduce the costs of obtaining a given reduction in emissions. The potential for offsets, especially internationally, has raised concerns that emission reduction programs might not “do enough at home.” Such concerns have typically been trumped by the reality that achieving targets solely using domestic emission reductions can be too expensive*, and that cheaper emission reductions eventually translate into more emission reductions and better environmental outcomes. In the EU ETS, for example, Maurits Henkemans explained that despite the initial 6% cap on offsets—reflecting this concern—recent decisions allow individual member states to decide whether or not to cap offsets” (emphasis added). See “Summary of RGGI Stakeholder Workshop on GHG Offsets”, at: (http://www.rggi.org/docs/offsets_workshopsummary.pdf). Offsets can be obtained from certified joint development projects undertaken in developing countries or perhaps from those certified projects undertaken in non-RGGI U.S. states. *Id*; See also, Jonathan Pershing, “Linking Trading Schemes: Dealing with Non-Parties”, at p. 18.

⁴¹³ See “Some States Flirt With Europe on Carbon Controls”, AP (12/16/04).

⁴¹⁴ Mr. James has also publicly referred to the RGGI states as independent sovereign entities in just the same way that EU Member States refer to their relationship with the EU Commission. “[E]ach state is much like a member state in the EU - a sovereign state, subject to its own processes and regulations. So the same sort of dynamics are in play here where you will have, just by the nature of the beast, individual uniqueness that will not fit into the overall regional piece.” See The Climate Group Viewpoint Interview Series – “The Opportunities and Challenges Associated With Emissions Trading”, quoting Christopher James, Director, Connecticut Department of Environmental Protection, at: (<http://www.theclimategroup.org/index.php?pid=568>).

⁴¹⁵ *Id*.

⁴¹⁶ See Anthony Hogley, Peter Hawkes, and Richard Saines, “Implementing the EU ETS: Climate Change Heats Up”, *Sustainable Development, Ecosystems and Climate Change Committee Newsletter*, American Bar Association (Vol. 7., No. 3 June 2004), at p. 2 and 7, *supra*.

⁴¹⁷ “Two sets of Americans have come here to talk global warming: the United States, opposed to controls on carbon emissions, and a bloc of united states, from Maine to Delaware, that plan to impose them. ‘It’s not an in-your-face thing,” Kenneth Colburn, a spokesman for those northeastern states, said of the seeming defiance of the Bush administration. ‘They’re doing what they think needs to be done.’” *Id.*

⁴¹⁸ The broad doctrine of federal preemption was succinctly discussed by the federal California Appellate Court for the 2nd District, in *Taiheiyō Cement Corp. v. Superior Court*, 129 Cal. Rptr. 2d 451 (Cal. App. 2 Dist., 2003) (Jan. 15, 2003). “Express preemption, as the term suggests, requires an affirmative declaration by Congress that federal law prohibits state regulation. *Metropolitan Life Ins. Co. v. Massachusetts* (1985) 471 U.S. 724, 738, 105 S.Ct. 2380, 85 L.Ed.2d 728; *Cipollone v. Liggett Group, Inc.* (1992), 505 U.S. 504, 516-518, 112 S.Ct. 2608, 120 L.Ed.2d 407; *Tafflin v. Levitt* (1990) 493 U.S. 455, 466, 110 S. Ct. 792, 107 L. Ed. 2d 88 [it is presumed Congress ordinarily does not intend to displace existing state authority].” (emphasis added). 129 Cal. Rptr. 2d 451, 458. “[Implied Preemption –] Federal law ‘implicitly overrides state law either when the scope of a statute indicates that Congress intended federal law to occupy a field exclusively [citation] or when state law is in actual conflict with federal law. *Freightliner Corp. v. Myrick* (1995), 514 U.S. 280, 287, 115 S. Ct. 1483, 131 L.ed2d 385. The Supreme Court has found implied preemption ‘where it is ‘impossible for a private party to comply with both state and federal requirements’ [citation] or where state law ‘stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress’” (emphasis added). (Id). ‘Preemption of a whole field... will be inferred where the field is one in which ‘the federal interest is so dominant that the federal system will be assumed to preclude enforcement of states laws on the same subject.’” (*Hillsborough County v. Automated Medical Labs* (1985) 471 U.S. 707, 105 S.Ct. 2371, 85 L.Ed.2d 714; See also: *Boyle v. United Technologies Corp.* (1988) 487 U.S. 500, 507, 108 S.Ct. 2510, 101 L.Ed.2d 442).” 129 Cal. Rptr. 2d 451, 460.

⁴¹⁹ Federal preemption under the U.S. Constitution was also discussed by the federal California Appellate Court for the 2nd District, in *Bronco Wine Co. v. Espinoza*, 128 Cal. Rptr. 2d 320 (Cal. App. 3 Dist. 2002). “Under the Supremacy Clause of the United States Constitution, federal statutes and regulations preempt conflicting state law. (U.S. Const., Art. VI, cl. 2; See: *Crosby v. National Foreign Trade Council* (2000) 530 U.S. 363, 372, 120 S.Ct. 2288, 2293, 147 L.Ed.2d 352, 361). In determining whether federal law preempts state law, the court’s task is to determine congressional intent. *English v. General Electric Co.* (1990) 496 U.S. 72, 79, 110 S.Ct. 2270, 2275, 110 L.Ed.2d 65, 74; *Northwest Cent. Pipeline v. Kan. Corp. Comm’n* (1989) 489 U.S. 493, 509, 109 S.Ct. 1262, 1273, 103 L.Ed.2d 509, 527). That intent may be express or implied. It is express when Congress explicitly states it is preempting state authority. (*Jones v. Rath Packing Co.* (1977) 430 U.S. 519, 525, 97S.Ct. 1305, 1309, 51 L.Ed.2d 604, 614). *It is implied (1) when it is clear that Congress intended, by comprehensive legislation, to occupy the entire field of regulation, leaving no room for the States to supplement federal law (Rice v. Santa Fe Elevator Corp.* (1947) 331 U.S. 218, 67 S.Ct. 1146, 91 L.Ed.1447). (2) where the state law directly conflicts with federal law because compliance with federal and state regulations is a physical impossibility. (*Florida Avocado Growers v. Paul* (1963) 373 U.S. 132, 142-143, 83 S.Ct. 1210, 1217-1218, 10 L.Ed.2d 248, 257) or (3) when state law ‘stands as an obstacle to the accomplishment and execution of the full purposes and objectives of Congress.’ (*Hines v. Davidowitz* (1941) 312 U.S. 52, 67, 61 S.Ct. 399, 404, 85 L.Ed. 581, 587; *Capital Cities Cable, Inc. v. Crisp* (1984) 467 U.S. 691, 699, 104 S.Ct. 2694, 2700, 81 L.Ed.2d 580, 588-589; *Barnett Bank of Marion City, N.A. v. Nelson* (1996) 517 U.S. 25, 31-32, 116 S.Ct. 1103, 1107-1108, 134 L.Ed.2d 237, 244-245). What is a sufficient obstacle is determined by examining the federal statute and identifying its purpose and intended effects. (*Crosby v. National Foreign Trade Council*, supra, 530 U.S. at p. 373, 120 S.Ct. at p. 2294, 147 L.Ed.2d at p. 361)” (emphasis added). 128 Cal. Rptr. 2d 320 at 332.

⁴²⁰ According to constitutional law scholar Laurence Tribe, “Even where state regulation is found not to conflict in its actual operation with the substantive policies underlying federal legislation, it must still be established, if the state regulation is to survive judicial scrutiny, that Congress did not exercise its jurisdictional veto. For if Congress has validly decided to ‘occupy the field’ for the federal government, state regulations will be invalidated no matter how well they comport with substantive federal policies. But federal occupation of a field will not be lightly inferred: ‘The principle to be derived from [the Supreme Court’s] decisions is that federal regulation of a field of commerce should not be deemed preemptive of state regulatory power in the absence of persuasive reasons – either that the nature of the regulated subject matter permits no other conclusion, or that the Congress has unmistakably so ordained.’... *Florida Lime & Avocado Growers v. Paul*, 373 U.S. 132, 142 (1963). See also *Allen-Bradley Local No. 1111 v. Wisconsin Employment Relations Board*, 35 U.S. 740, 749 (1941); *Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947).” (emphasis added). Tribe at p. 384. “Where such ‘persuasive reasons have’ been found, however,

state action has been held to be preempted even prior to the effective date of the federal legislation; *even nascent federal occupation of a field suffices to oust the states*...*Erie Railroad v. New York*, 233 U.S. 671 (1914). (emphasis added). The less comprehensive is a federal regulatory scheme, the more likely it is that a holding ousting state jurisdiction would create a substantial legal vacuum—and hence, the less likely is such a holding...See, e.g., *Askew v. American Waterways Operators, Inc.*, 411 U.S. 325, 336-37 (1973)...[W]here Congress legislates ‘in a field which the States have traditionally occupied...we start with the assumption that the historic police powers of the States [are] not to be [ousted] by the Federal Act unless that was the clear and manifest purpose of Congress.’...*Rice v. Santa Fe Elevator Corp.*, 331 U.S. 218, 230 (1947). (emphasis added). Tribe at p. 385. “...On the other hand, *if the field is one that is traditionally deemed ‘national’*, the Court is more vigilant in striking down state incursions into subjects that Congress may have reserved to itself...See, e.g., *Northern States Power Co. v. Minnesota*, 447 F.2d 143 (8th Cir. 1971), *aff’d mem.*, 405 U.S. 1035 (1972) (*state nuclear waste law preempted*)” (emphasis added). Tribe at pp. 386.

⁴²¹ Laurence Tribe has comprehensively discussed the limited scope of state regulation of interstate commerce. “In addition to isolating...the factors which the Supreme Court takes into account when it balances the importance of a state regulatory interest against the adverse effect of the regulation on interstate commerce, it is possible to note a number of more general elements often present in decisions dealing with the constitutional validity of state regulations affecting interstate commerce: *the recurring distinction between economic and social regulation, the stress on local concerns, and the focus on the availability of less restrictive alternatives* (emphasis added)...*State regulations seemingly aimed at furthering public health or safety, or at restraining fraudulent or otherwise unfair trade practices, are less likely to be perceived as ‘undue burdens on interstate commerce’ that are state regulations evidently seeking to maximize the profits of local businesses* [emphasis added]. Indeed, where the Supreme Court has held that the national interest in the free flow of commerce supercedes a state interest in public safety, it has generally seemed that the challenged statute contributed only marginally if at all to the public safety”. Tribe at pp. 340-341. For example in “*Dean Milk Co. v. City of Madison*...340 U.S. 349 (1951)...the Supreme Court struck down local regulations restricting the importation of milk because the local health interests there asserted could have been adequately served if the city had dispatched its inspectors to the out-of-state pasteurization plants to make their quality checks, or if the city had relied on available federal inspection services for the needed data: ‘in...erecting an economic barrier protecting a major local industry against competition from without the State, *Madison* plainly discriminates against interstate commerce. ***This it cannot do, even in the exercise of its unquestioned power to protect the health and safety of its people, if reasonable nondiscriminatory alternatives, adequate to conserve legitimate local interests, are available***’ [italics in original; boldfaced emphasis added]... *Id.* at 354.” Tribe at pp. 341-42.

⁴²² Furthermore, the Court of Appeals for the 3rd Circuit, in *Atlantic Coast Demolition & Recycling, Inc. v. Board of Chosen Freeholders of Atlantic County*, 48 F. 3d 701 (C.A.3 1995), discussed the parameters of the interstate commerce clause as concerns state regulation. “The Commerce Clause grants to Congress the affirmative power [] to regulate Commerce...among the several States.’ U.S. Cons. Art. I, Sec. 8, cl. 3. ‘Although the Clause thus speaks in terms of powers bestowed upon Congress, the [Supreme] Court long has recognized that it *also limits the power of the States to erect barriers against interstate trade.*’ *Lewis v. BT Investment Managers, Inc.*, 447 U.S. 27, 35, 100 S.Ct. 2009, 64 L.Ed.2d 702 91980). [emphasis added.] The negative or dormant aspects of the Commerce Clause that limit state authority apply to subject areas in which ‘Congress has not affirmatively acted to either authorize or forbid the challenged state activity.’ *Norfolk Southern Corp. v. Oberly*, 822 F.2d 388, 392 (3d Cir. 1987). Thus, any state regulation of interstate commerce is subject to scrutiny under the dormant Commerce Clause unless such regulation has been preempted or expressly authorized by Congress. 48 F. 3d 701 at 710. “...The fundamental issue presented by this appeal is whether the district court erred in concluding that the New Jersey regulatory waste flow scheme does not violate the dormant Commerce Clause. To determine this fundamental issue, three subsidiary issues must be decided: (1) whether the district court erred in applying the Pike balancing test, rather than what we have termed the ‘heightened scrutiny’ test...*Norfolk Southern Corp. v. Oberly*...; (2) whether the New Jersey waste flow regulations are excepted from the strictures of Commerce Clause scrutiny under the market participant doctrine; and (3) if not, whether these regulations meet the applicable Commerce Clause test in light of New Jersey’s particular circumstances. We conclude that *New Jersey’s waste flow regulations, in effect and by design, discriminate against interstate commerce and that heightened scrutiny under the dormant Commerce Clause is required.*” (emphasis added.) 48 F. 3d 701, 709-710. “...The Supreme Court’s decision in *C&A Carbone Inc. v. Town of Clarkstown*, 511 US 383, 114 S.Ct. 1677, 128 L.Ed.2d 399 (1994), provides significant guidance with respect to these issues...48 F. 3d 701, 710. “...Having concluded that the town’s ordinance affected interstate commerce, the Court addressed whether its effect was a discriminatory one – whether it operated to favor local commercial interests or disfavor out-of-state ones. This was important because *a local measure that discriminates against interstate*

commerce on its face or in effect can be upheld only if it falls within 'a narrow class of cases in which the municipality can demonstrate, under rigorous scrutiny, that it has no other means to advance a legitimate local interest.' *Id.* at ---, 114 S.Ct. at 1683. Such protectionist measures are thus subjected to heightened scrutiny as compared with local measures that pursue a legitimate local interest evenhandedly and impose only an incidental burden on interstate commerce [emphasis added]. Nondiscriminatory measures will be upheld unless the incidental burden on interstate commerce...is 'clearly excessive in relation to the putative local benefits.'" *Id.* at --, 114 S.Ct. 1682 (quoting *Pike v. Bruce Church, Inc.* 397 U.S. 137, 142, 90 S.Ct. 844, 847, 25 L.Ed.2d 174 (1970)).

⁴²³ Dormant Commerce Clause jurisprudence has not treated state utility regulation any differently than other state regulation. "When state utility regulation is *protectionist*, the Supreme Court has employed *heightened scrutiny*; where it is not, a *benefits and burdens analysis* has been applied. [emphasis added]. In *New England Power Co. v. New Hampshire*, 455 U.S. 331, 334-36, 102 S.Ct. 1096, 1098-99, 71 L.Ed.2d 188 (1982), the Supreme Court reviewed an order of the New Hampshire Public Utility Commission that required the New England Power Company, a consortium of Connecticut River hydroelectric power companies, to reserve for New Hampshire residents an amount of power equal to the amount generated by the consortium within that state. The Court found that the Commission's order was essentially an 'exportation ban' that placed a direct and substantial burden on interstate commerce and therefore applied the heightened scrutiny test to the discriminatory order. *Id.* at 339, 102 S.Ct. at 1100-01." 48 F. 3d 701, 713-714. "Subsequently, in *Arkansas Electric Cooperative Corp. v. Arkansas Public Service Commission*, 461 U.S. 375, 103 S.Ct. 1905, 76 L.Ed.2d 1 (1983), in rejecting an outdated Commerce Clause utility test that focused on whether the state was regulating wholesale or retail sales of gas or electricity, the Supreme Court noted: 'Our constitutional review of state utility regulation in related contexts has not treated it as a special province insulated from our general Commerce Clause jurisprudence.' [emphasis added]. *Id.* at 391, 102 S.Ct. 1916 (citing *New England Power Co.*...)..." More recently, the Supreme Court applied the heightened scrutiny test to protectionist state public utility regulation in *Wyoming v. Oklahoma*, 502 U.S. 437, 455, 112 S.Ct. 789, 801, 117 L.Ed.2d 1 (1992)... The state statute there under attack required that all coal-fired electricity plants located within the state of Oklahoma burn at least ten percent Oklahoma mined coal. The Court concluded that the statute discriminated against interstate commerce and struck it down under the dormant Commerce Clause, noting that the question of which level of scrutiny to apply to the protectionist measure was 'not a close call'. *Id.*, at 800 n.12., 112 S.Ct. at 455 n. 12. Based on this Supreme Court case law, we reject the Department's contention that because the waste flow regulations are part of a larger utility regulation system, they are not subject to the heightened scrutiny test despite any discriminatory effect.

⁴²⁴ As Professor Tribe describes it, "[P]ower over external affairs [generally] is not shared by the states; it is vested in the national government exclusively." *United States v. Pink*, 315 U.S. 203, 233 (1942). The declaration of Article I, Sec. 10, that '[n]o State shall enter into any Treaty, Alliance or Confederation,' or, 'without the consent of the Congress, lay any imposts or duties on imports or exports,' is thus but one manifestation of a general constitutional principle that, whatever the division of foreign policy responsibility within the national government, all such responsibility is reposed at the national level rather than dispersed among the states and localities. 'For local interests the States of the Union exist, but for national purposes, embracing our relations with foreign nations, we are but one people, one nation, one power.' *Chae Chan Ping v. United States (Chinese Exclusion Case)*, 130 U.S. 581, 606 (1889). [emphasis added] ...[A]ll state action, whether or not consistent with current federal foreign policy, that has significant impact on the conduct of American diplomacy is void as an unconstitutional infringement upon an exclusively federal sphere of responsibility. Thus, in *Zschernig v. Miller*, 389 U.S. 429 (1968), the Supreme Court struck down, as 'an intrusion by the State into the field of foreign affairs which the Constitution entrusts to the President and the Congress,' an Oregon statute which required probate courts to make a three-leveled inquiry 'into the type of governments that obtain in particular foreign nations' before permitting citizens of those nations to receive property left them by Oregon residents. [389 U.S. 429, at 432, 434.]" (emphasis added). Tribe at p. 172. Furthermore, the Restatement (Third) of the Foreign Relations Law of the United States provides, "under the United States Constitution, a state of the United States may make compacts or agreements with a foreign power with the consent of Congress (Article I, Section 10, clause 2), but such agreements are limited in scope and subject matter." In addition, "[a] State may make some agreements with foreign governments without the consent of Congress so long as they do not impinge upon the authority of the foreign relations of the United States." According to Professor Louis Henkin, "in the governance of their affairs, states have variously and inevitably impinged on U.S. foreign relations." See Hal Shapiro, "Is There a Role for Sub-Federal Governments in International Trade Policy Formation?", *Ius Gentium*, Journal of the University of Baltimore Center for International and Comparative Law (Vol.9 Fall 2003) at pp. 60, 74, citing L. Henken, *Foreign Affairs and the United States Constitution*, 162 (2d ed. 1996).

⁴²⁵ “[T]he Constitution plainly grants the President the initiative in matters directly involved in the conduct of diplomatic and military affairs. Article II Sec. 2 provides that ‘[t]he President shall...have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two-thirds of the Senators present concur; and that the President ‘shall nominate, and by and with the Advice and Consent of the Senate, shall appoint Ambassadors, other public Ministers and Consuls...’ Similarly, Article II, Sec. 3, states that the President ‘shall receive Ambassadors and other public Ministers...’ Taken together with the command of Article II, Sec. 3, that the President ‘shall take Care that the Laws be faithfully executed’, these constitutional provisions have come to be regarded as explicit textual manifestations of the inherent presidential power to administer, if not necessarily to formulate, the foreign policy of the United States.” (emphasis added). Tribe at p. 164. “Although influenced (often decisively) by congressional action or constitutional restraint, the President thus has exclusive responsibility for announcing and implementing military policy; for negotiating, administering and terminating treaties or executive agreements; for establishing and breaking relations with foreign governments; and generally for applying the foreign policy of the United States.” (emphasis added). Tribe at p. 164-165...[E]xecutive agreements have the same weight as formal treaties in their effect upon conflicting state laws. The Supreme Court held in *United States v. Belmont*...[301 U.S. 324 (1937)]...that ‘in the case of all international compacts and agreements...complete power over international affairs is in the national government and is not and cannot be subject to any curtailment or interference on the part of the several states.’...[301 U.S. at 331.] [...*United States v. Belmont* has been read as intimating that the permissible scope of executive agreements is largely, if not completely, coextensive with that of treaties.]” Tribe at p. 171.

⁴²⁶ “Article I, Sec. 8 of the Constitution grants Congress the authority to ‘to regulate commerce with foreign nations.’ This clause has been construed as all but exclusive: ‘It is an essential attribute of the power that is...plenary...[and that] its exercise may not be limited, qualified, or impeded to any extent by state action’... [(*Board of Trustees of the University of Illinois v. United States*, 289 U.S. 48, 56 (1933))] ‘Foreign commerce has been defined broadly: it includes ‘intercourse, navigation, and not traffic alone’...*Lord v. Steamship Co.*, 102 U.S. 541, 544 (1881)...Thus congressional authority embraces not only trade with foreign nations, but also the regulation of shipments on the high seas, even where the ports of embarkation and destination are in the same American state...[T]he Supreme court, *in the face of congressional silence*, has allowed *only such state action as seems consistent with the nationalizing policies perceived to underlie the congressional power delegated in the commerce clause itself*. Thus, in *Cooley v. Board of Wardens of the Port of Philadelphia*...53 U.S. (12 How.) 298 (1851)...the Court allowed state regulation even of some aspects of in-port piloting and navigation of ships ‘in’ foreign commerce” (emphasis added). Tribe at p. 369. “In cases involving foreign commerce, however, the judicial interest-balancing which lies behind a determination under *Cooley* is strongly affected by the *inherently national character of most regulation of external affairs*...[emphasis added]. See, e.g., *Zschernig v. Miller*, 389 U.S. 429 (1968). Tribe at pp. 369-70. If state action touching foreign commerce is to be allowed, *it must be shown not to affect national concerns to any significant degree*, a far more difficult task than in the case of interstate commerce” (emphasis added). Tribe at p. 370.

⁴²⁷ As explained by the court in *Taiheiyō Cement Corp. v. Superior Court*, 129 Cal. Rptr. 2d 451 (Cal. App. 2 Dist., 2003), “*Zschernig* articulated the ‘dormant foreign relations preemption’ doctrine, which holds the federal government has exclusive power in the field of foreign relations even in the absence of any federal law or treaty. (*Gerling Global Reinsurance Corp. of America v. Low* (9th Cir. 2001) 240 F.3rd 739, 751, fn 9 (Gerling Global); *National Foreign Trade Council v. Natsios* (1st Cir. 1999) 181 F.3rd 38, 58-59, fn. 14).” (emphasis added). 129 Cal. Rptr. 2d 451, 461. “...Writing for the Court, Justice Douglas concluded, ‘...[State] regulations must give way if they impair the effective exercise of the Nation’s foreign policy [citation]...[E]ven in the absence of a treaty, a State’s policy may disturb foreign relations.’ (*Id* at pp. 440-441, 88 S.Ct. 664) [emphasis added]. [cf. *Clark v. Allen* (1947) 331 U.S. 503, 67 S.Ct. 1431, 91 L.Ed. 1633]. [emphasis added]... Under *Clark* and *Zschernig*, a statute will be invalidated if its application involves a state making inappropriate inquiries and criticisms regarding the operations of foreign governments so that the statute has ‘more than ‘some incidental or indirect effect in foreign countries. (*Zschernig*, supra, 389 U.S. at p. 434, 88 S.Ct. 664; see also *Gerling Global*, supra, 240 F.3d at p. 752-753; *Trojan Technologies, Inc. v. Com. of PA* (3rd Cir. 1990) 916 F.2d 903, 913...[emphasis added]. In *Zschernig*, the Supreme Court held, ‘an intrusion by the State into the field of foreign affairs which the Constitution entrusts to the President and the Congress’ is unlawful if the state law ‘has a direct impact upon foreign relations and may well adversely affect the power of the central government to deal with those problems’. (*Zschernig*, supra, 389 U.S. at pp. 432, 441, 88 S.Ct. 664). States may enact laws affecting local concerns that touch upon foreign affairs, but only if their actions have ‘some incidental or indirect effect in foreign nations’ (*Id*. At p. 433, 88 S.Ct. 664) [emphasis added].” 129 Cal. Rptr. 2d 451, 462.

⁴²⁸ “In *Taiheiyō*, the court found that the California statute did not “create[] a cause of action where none previously existed [and did not] interfere with the federal government’s ability to conduct foreign affairs...First, we discern no improper foreign policy purpose underlying the enactment of section 354.6... We reject the contention that section 354.6 was enacted for an improper foreign policy purpose because it is directed toward a specific foreign country...By its terms, section 354.6 does not target a specific foreign country nor implicate any foreign policy between the United States and Japan...Second section 354.6 does not involve the type of wide-ranging government scrutiny or criticism of a foreign government’s practices that the Supreme Court found objectionable in *Zschernig*. The statute does not require a state court to inquire into current policy of a foreign nation or the structure of its government. In addition, the statute does not make any statement concerning or criticizing the current or past foreign policies of any country... [emphasis added]...Third, section 354.6 does not have more than ‘an incidental or indirect effect’ on the federal government’s current or future relations with any foreign country...because the statute applies retroactively, not prospectively...” (emphasis added), 129 Cal. Rptr. 2d 451, 465-466...In *Miami Light Project v. Miami-Dade County* (S.D. Fla. 2000) 97 F. Supp.2d 1174, ordinances were enacted requiring persons seeking to contract with Miami-Dade County to sign affidavits stating they did not transact business with Cuba or Cuban nationals...In partially granting the plaintiff’s motion for a preliminary injunction, the court concluded the plaintiffs were likely to prevail on their claim that the ordinances were unconstitutional under *Zschernig* because “[t]he stated purpose of the law is to protest and condemn Cuba’s totalitarian regime...[and] designed to specifically impact and affect the affairs of a foreign country.” (*Id.* At p. 1180) [emphasis added]. In *National Foreign Trade Council v. Natsios*, 181 F.3d 38, a Massachusetts law was enacted restricting the ability of state agencies to purchase goods from companies doing business in Burma. The court held the law had a significant direct effect on a foreign government and therefore inappropriately interfered with the federal foreign affairs power under *Zschernig*. The court arrived at this conclusion because the design and intent of the law demonstrated displeasure for Burma’s human rights policies, thereby affecting that country’s affairs. (*Id.*, at p. 53).” (emphasis added). 129 Cal. Rptr. 2d 451, 467

⁴²⁹ See discussion, *infra*.

⁴³⁰ See “Rulemaking Activities”, NY Register (May 18, 2005), at pp. 18-25, at: (<http://www.dos.state.ny.us/info/register/2005/may18/pdfs/Rules.pdf>); “Proposed Amendments - Part 218 – Emissions Standards for Motor Vehicles and Motor Vehicle Engines”, Proposed, Emergency and Recently Adopted Regulations Pertaining to Air Pollution – New York State Department of Environmental Conservation, at: (http://www.dec.state.ny.us/website/dar/air_regs.html).

⁴³¹ See “Reduction of CO₂ Emissions from Power Plants - State and Local Net Greenhouse Gas Emissions Reduction Programs”, Pew Center on Global Climate Change, at: (<http://www.pewclimate.org/states.cfm?ID=40>).

⁴³² *Id.*

⁴³³ See “Sons of Kyoto: Greenhouse Gas Legislation in the States - Updated: September 27, 2004”, at: (<http://www.alec.org/viewpage.cfm?pgname=5.1046>).

⁴³⁴ See “Multiple Pollutant Reduction Program”, Pew Center on Global Climate Change, at: (<http://www.pewclimate.org/states.cfm?ID=53>).

⁴³⁵ *Id.* “The cap of 5,425,866 tons of CO₂ annually will apply through December 31, 2010. A cap for years following 2010 has not been determined, but on March 31, 2004...a cap of 4,069,400 tons (25 percent below 1990 levels)...[was recommended]...to the legislature, contingent on the existence of an acceptable regional trading program.” The proposed lower cap may be considered as early as July 2005. *Id.*

⁴³⁶ See Public Act 90-219, CT House Bill 5696 (1990). See, also: “Environmental Defense Fund, States and Climate Change” (6/25/03), at: (<http://www.environmentaldefense.org/article.cfm?contentid=2863>).

⁴³⁷ See “USEPA Global Warming States Actions List”, at: (<http://yosemite.epa.gov/globalwarming/ghg.nsf/StatePolicyOptionsSearch?OpenForm>); (<http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ActionsStateLegislativeInitiatives.html>).

⁴³⁸ “...Connecticut is one of the states that agreed, under the auspices of the New England Governors and Eastern Canadian Premiers (NEG/ECP), to a voluntary short-term goal of reducing regional greenhouse gas emissions to 1990 levels by 2010 and by 10 percent below 1990 levels by 2020. The NEG/ECP long-term goal is to reduce emissions to a level that eliminates any dangerous threats to the climate -- a goal scientists suggest will require reductions 75 to 85 percent below current levels. These goals were announced in August 2001.” See Environmental Defense Fund, “States and Climate Change” (6/25/03), at: (<http://www.environmentaldefense.org/article.cfm?contentid=2863>).

⁴³⁹ See “Sons of Kyoto: Greenhouse Gas Legislation in the States”, Updated: September 27, 2004”, at: (<http://www.alec.org/viewpage.cfm?pgname=5.1046>).

⁴⁴⁰ See “Connecticut Climate Change Action Plan Submitted to Legislative Committees Press Release, State of Connecticut, Department of Environmental Protection” (1/6/05), at: (<http://www.ctclimatechange.com/documents/pressrelease010605FINAL.pdf>).

⁴⁴¹ *Id.*

⁴⁴² *Id.*

⁴⁴³ See Greenhouse Gas Reduction Target”, Pew Center on Global Climate Change, at: (<http://www.pewclimate.org/states.cfm?ID=42>).

⁴⁴⁴ The Public Service Enterprise Group (PSEG) first “signed the covenant in 2000, and further committed in a 2002 agreement to reduce total CO2 emissions from all of its coal, natural gas, and oil power plants by 15 percent from 1990 levels by 2005”. It also agreed to be subject to monetary penalties if those reductions were not achieved. *Id.*

⁴⁴⁵ See “USEPA, Global Warming States Actions List”, at:

(<http://www.state.nj.us/dep/aqm/curformp.htm> <http://www.epa.gov/epahome/exitepa.htm>).

⁴⁴⁶ See “Greenhouse Gas Reduction Target”, Pew Center on Global Climate Change, at: (<http://www.pewclimate.org/states.cfm?ID=42>).

⁴⁴⁷ “[T]he definition of distillates of air” was initially changed for N.J.A.C. 7:27-21.1. “The proposed amendments would revise the definition of distillates of air at N.J.A.C. 7:27-8.1, 7:27-17.1, 7:27-19.1, and 7:27-22.1, as a prelude to formal regulation of CO2. See: Notice of Rule Proposal, Reclassification of CO2 as an Air Contaminant, N.J.A.C 7:27-22.1; 7:27-8.1; 7:27-17.1; 7:27-19.1, NJ Department of Environmental Protection, Environmental Regulation, Office of Air Quality Permitting (NJ Register, 10/18/04), at:

(<http://www.state.nj.us/dep/rules/notices/101804b.html>);

(http://www.state.nj.us/dep/rules/rules_pdf/ruleprop101804b.pdf), at p. 4. “The Department currently defines by default as air contaminants the other five significant greenhouse gases, as defined by the Intergovernmental Panel on Climate Change...” *Id.*

⁴⁴⁸ “This clarification of the status of CO2 is a regulatory prelude to anticipated future regulatory adoption of a Model Rule proposed through the Regional Greenhouse Gas Initiative (RGGI)... New Jersey is participating through RGGI, along with eight other states in the Northeast and Mid-Atlantic (Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont), in the development of a regional CO2 cap-and-trade program. Prior to regulating CO2 as an air pollutant, the Department would need to make a formal determination and advise the public that regulating CO2 is in the “best interest of human health, welfare, and the environment” *Id.*

⁴⁴⁹ *Id.*, at p. 23.

⁴⁵⁰ The initiative committed the states to acting “individually and regionally to reduce greenhouse gas emissions” through strategies that “provide long-term sustainability for the environment, protect public health, consider social equity, and expand public awareness.” See “Statement of the Governors of California, Oregon and Washington On Regional Action to Address Global Warming”, Offices of the Governors (Sept. 23, 2003), at: (http://www.ef.org/westcoastclimate/Governors_Statement.pdf). *** ADDED

⁴⁵¹ *Id.* See also “West Coast Governors’ Global Warming Initiative – Staff Recommendations to the Governors”, (Nov. 2004), Executive Summary p 2, at:

(http://www.ef.org/westcoastclimate/WCGGWI_Nov_04%20Report.pdf).

⁴⁵² “West Coast Governors’ Global Warming Initiative – Staff Recommendations to the Governors”, Executive Summary, at p. 3.

⁴⁵³ See California SB 1771. “USEPA Global Warming States Actions List”, at:

(<http://yosemite.epa.gov/globalwarming/ghg.nsf/StatePolicyOptionsSearch?OpenForm>);

(<http://yosemite.epa.gov/OAR/globalwarming.nsf/content/ActionsStateLegislativeInitiatives.html>). “On September 7, 2002 Governor Davis approved a bill requiring the California Climate Action Registry to adopt procedures and protocols for both project reporting and carbon sequestration in forests.” See SB 812, “Environmental Defense Fund, States and Climate Change” (6/25/03), at:

(<http://www.environmentaldefense.org/article.cfm?contentid=2863>).

⁴⁵⁴ “Under the legislation... [AB 1493 otherwise known as the Pavley bill]... the California Air Resources Board (CARB)... must adopt standards that will achieve the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles, taking into account environmental, social, technological and economic factors. ‘Cost-effective’ is defined by the legislation to mean greenhouse gas reductions that are economical to the owner of the vehicle, taking into account the full life-cycle costs of the vehicle. See: “Pew Center on Global Climate Change - State and Local Net Greenhouse Gas Emissions Reduction Programs”, at: (<http://www.pewclimate.org/states.cfm?ID=51>). See also California Air Resources Board, Climate Change, (Sept. 24, 2004) at: (<http://www.arb.ca.gov/regact/grnhsgas/grnhsgas.htm>).

⁴⁵⁵ See PBS “Now”, (4/15/05), at: (<http://www.pbs.org/now/science/caautoemissions2.html>).

⁴⁵⁶ *Id.* “CARB estimated that the initial phase of the regulations will increase the average price of new vehicles by as much as \$367.” *Id.*; *** ADDED See, also: Sandy Liddy Bourne, “California Regulators Issues Rules for GHG Reductions”, *Environmental News* (Aug. 1, 2004), at: (<http://www.heartland.org/Article.cfm?artId=15427>).

⁴⁵⁷ The ARB proposed “a 2-5 percent reduction in emissions in 2009, depending on vehicle type, rising incrementally to reach approximately 30 percent below projected 2009 levels in 2014.” It expected that the cost of the regulations would be “offset by decreased operating costs over the life of the vehicle.” *Id.*

⁴⁵⁸ See “Automakers Challenge CA CO2 Regulation in Court” (Dec. 7, 2004), Green Car Congress, at: (http://www.greencarcongress.com/2004/12/automakers_chal.html); See also Katherine Stapp, “Car Industry Challenges California Law” *Tierramerica* (Feb. 26, 2005), at: (http://www.ipsnews.net/new_notas.asp?idnews=27639). It should be noted that this article, which is critical of the Bush Administration’s decision not to regulate carbon dioxide emissions and “to protect” the U.S. auto industry, is not unbiased in its reporting. “Tierramerica is a specialised news service produced by IPS with the backing of the United Nations Development Programme and the United Nations Environment Programme” (emphasis added). *Id.*

⁴⁵⁹ See: PBS “Now”, (4/15/05).

⁴⁶⁰ *Id.*

⁴⁶¹ See “Governor Schwarzenegger Establishes Green House Gas Emission Reduction Targets”, Press Release GAAS:215:05 (6/1/05), at: (<http://www.climatechange.ca.gov>).

⁴⁶² That politics rather than science played a major role in the governor’s decision to sign the executive order and then announce it at the United Nations World Environment Day in San Francisco should not be overlooked.

⁴⁶³ See “Executive Order S-3-05 By the Governor of the State of California” (6/1/05) *Id.*

⁴⁶⁴ See “California’s Global Warming Reduction Targets – FACT SHEET”, Union of Concerned Scientists (June 2005), at: (<http://www.climatechoices.org/CA%20Carbon%20Targets.pdf>).

⁴⁶⁵ See: “USEPA Global Warming States Actions List”, *supra*.

⁴⁶⁶ *Id.*

⁴⁶⁷ See “Sons of Kyoto: Greenhouse Gas Legislation in the States, Updated” (Sept. 27, 2004), at: (<http://www.alec.org/viewpage.cfm?pgname=5.1046>).

⁴⁶⁸ See HB 2200, “Relating to forestry carbon offsets, 71st Oregon Legislative Assembly, 2001 Regular Session, at: (http://www.leg.state.or.us/01reg/measures/hb2200_dir/hb2200_en.html).

⁴⁶⁹ See “Innovative State Legislation – Issue: Greenhouse Gas Reporting and Reduction Strategies”, State Environmental Resource Center (June 15, 2004), at: (<http://www.serconline.org/ghg/stateactivity.html>).

⁴⁷⁰ See HB 2326, “Engrossed Substitute House Bill - An Act Relating to the Washington climate and rural energy development center...”, “State of Washington, 57th Legislature, 2002 Regular Session, at: (http://www.leg.wa.gov/pub/billinfo/2001-02/House/2325-2349/2326-s_sl.pdf).

⁴⁷¹ *Id.*

⁴⁷² See “Tighter Vehicle Emissions Standards Proposed for Washington State”, *American International Automobile Dealers*” (Dec. 2, 2004), at: (<http://www.aiada.org/article.asp?id=28962>).

⁴⁷³ “The Washington bill HB 1397 adopts the standards of Title 13 of the California Code of Regulations that are effective as of January 1, 2005.” See “HB 1397, “Engrossed Substitute House Bill – An Act relating to vehicle emissions standards”, State of Washington, 59th Legislature, 2005 Regular Session”, at: (<http://www.leg.wa.gov/pub/billinfo/2005-06/Htm/Bills/House%20Bills/1397-S.E.htm>). See also “Washington House Passes Bill Adopting California Emissions Regulation”, *Green Car Congress* (March 17, 2004), at: (http://www.greencarcongress.com/climate_change).

⁴⁷⁴ See “Washington State Legislature – Bill Information – HB 1397, Changing Vehicle Emissions Standards Provisions, 2005-06 Biennium” at: (<http://www.leg.wa.gov/wsladm/billinfo1/dspBillSummary.cfm?billnumber=1397&year=2005#files>); (<http://www.leg.wa.gov/pub/billinfo/2005-06/Htm/Bills/House%20Passed%20Legislature/1397-S.PL.htm>).

⁴⁷⁵ “It will be ‘ambitious, if not impossible’ to make legally binding changes to the European Union’s emissions trading scheme before the second phase starts on Jan 1, 2008, European Commission environment department director of air and chemicals, Jos Delbeke, said ... ‘The national allocation plan process has to be rethought to ensure a level playing field both environmentally and economically,’ said Delbeke. ‘We might need to take some tough decisions for 2012, but I doubt if we can do much for the next round (2008-12).’ He said the key elements in the NAPs debate included the state of the internal EU energy market, business as usual forecasts, consistency with Kyoto targets and state aid. *Delbeke’s main concern was that*

the NAPs were not harmonized across the 25 EU members. 'I'm frightened by the degree of complexity creeping in with each NAP we receive,' he said. He recognized that member state governments were under pressure from national lobbyists, but there was a danger of making the NAPs so complicated that the ETS would not work well" (emphasis added). See "Flawed Allocation Process Can't Be Fixed by 2008: EC", Platts Emissions Daily (Feb. 18, 2005), at:

(<http://www.platts.com/Electric%20Power/Resources/News%20Features/emissionsmarket/#8>).

⁴⁷⁶ See Tomas Alex Tizon, "Mayor is on a Mission to Warm U.S. Cities to the Kyoto Protocol", Los Angeles.com (Feb. 22, 2005).

⁴⁷⁷ During 2001, the Massachusetts state legislature had considered adoption of a bill known as SB-1115 which sought to establish a Commission to "study the potential effects of the environment and social conditions on children's health...bas[ed] on the precautionary principle." The Grocery Manufacturers of America, a leading food industry trade group submitted a letter of protest against the adoption of that bill. See "GMA Letter in Opposition to Massachusetts 'Precautionary Principle' Legislation" (May 10, 2001), at: (<http://www.gmabrands.com/news/docs/Testimony.cfm?DocID=753&>).

⁴⁷⁸ In 2000, New Hampshire "State Representative Derek Owen of Hopkinton introduced a bill that would [have] ma[d]e it state policy to use the so-called "precautionary principle" when determining the safety of using products and technologies. Although aimed specifically at the land application of bio-solids (treated sewage sludge), the proposal [would] have significantly broader ramifications for environmental laws, if adopted." See Gregory H. Smith, "Beware The 'Precautionary Principle'" (Dec. 18, 2000), at: (<http://www.mclane.com/news/publications/environmental/030.html>).

⁴⁷⁹ As recently as April 2004, the Hawaii State legislature was considering "House Concurrent Resolution 49. This resolution...urges the state departments and agencies to implement the "precautionary principle" policy framework on environmental protection in conducting the state's affairs." See "GMA Letter in Opposition to Hawaii Precautionary Principle Resolution", Apr. 5, 2004, at: (<http://www.gmabrands.com/publicpolicy/docs/correspondence.cfm?DocID=13>)

⁴⁸⁰ "In an October [2000] speech at the National Academy of Sciences in Washington, D.C., New Jersey governor Christine Todd Whitman averred that "policymakers need to take a precautionary approach to environmental protection.... We must acknowledge that uncertainty is inherent in managing natural resources, recognize it is usually easier to prevent environmental damage than to repair it later, and shift the burden of proof away from those advocating protection toward those proposing an action that may be harmful." See David Appell, "The New Uncertainty Principle", Scientific American (Jan. 2001), at: (<http://www.biotech-info.net/uncertainty.html>).

⁴⁸¹ San Francisco Board of Supervisors adopted the precautionary principle as city and county policy June 17, 2003. "The San Francisco Department of Environment is integrating precautionary considerations into the city's purchasing policies by choosing only the safest alternatives for specific product categories – such as cleaners, pesticides, etc." See "Precautionary Chemicals Policy Initiatives in the United States," Lowell Center for Sustainable Production, at 2. See also "San Francisco Adopts Precautionary Principle", *Id.*, at: (http://www.newmediaexplorer.org/sepp/2003/06/29/san_francisco_adopts_precautionary_principle.htm). The San Francisco Precautionary Principal Ordinance can be found at: (http://www.ci.sf.ca.us/sfenvironment/aboutus/policy/legislation/precaution_principle.htm).

⁴⁸² "On September 23, 2004...the Portland City Council and Multnomah County...jointly...pass[ed] the Precautionary Principle Resolution...directing development of a Toxics Reduction Strategy for Multnomah County and City of Portland government using the Precautionary Principle. The resolution will be used when developing new environmental policies: If a practice poses a threat to human health or the possibility of serious environmental damage, the Precautionary Principle approach will use the best available science to identify cost-effective alternatives that possess the least potential threat to human health and the city's natural systems." See "Precautionary Principle Resolution Passed", Oregon Center for Environmental Health, at: (http://www.oregon-health.org/precaution_successes.html).

⁴⁸³ "Some states in the U.S. have begun to toy with precautionary ideas, but it is *at the municipal level* where precaution has really flourished" (emphasis added). See Carolyn Raffensperger and Peter Montague, "Land Use and the Precautionary Principle", Rachel's Environment and Health News, No. 787, Mar. 18, 2004, at: (<http://www.organicconsumers.org/corp/landuse032304.cfm>).

⁴⁸⁴ *Id.*, citing National Association of County and City Health Officials (NACCHO), Resolution 03-02 to Support Land Use Planning/Community Design, (Sept. 9, 2003), at: (<http://www.rachel.org/library/getfile.cfm?ID=337>).

⁴⁸⁵ The petition, filed on October 20, 1999, requested that the EPA regulate carbon dioxide GHG emissions from motor vehicles pursuant to CAA Sec. 202(a).

⁴⁸⁶ The Notice of Denial indicated that "during the 1990 amendment process, Congress [had] considered and rejected proposed CO2 standards for autos, [and that] [o]ther federal statutes addressing global climate

change, including the Energy Policy Act of 1992, [did] not authorize regulation of GHGs...[It] also assert[ed] that the structure of the basic regulatory provisions of the CAA suggest[ed] that Congress could not have intended its use to address global atmospheric issues...[In effect, it cited the U.S.] Supreme Court decision in *Food and Drug Administration v. Brown & Williamson Tobacco Corp.*, 120 S. Ct. 1291 (2000) [in which] the Supreme Court explained that “[in] extraordinary cases...there may be reason to hesitate before concluding that Congress has intended...an implicit delegation.” See EPA Determines that it Lacks Authority to Promulgate Climate Change Regulations”, VanNess Feldman Issue Alert (Sept. 8, 2003), at: (<http://www.vnf.com/content/articles/epaltert090803.pdf>).

⁴⁸⁷ *Id.* The Notice of Denial was based on an August 28, 2003 memorandum from EPA General Counsel Robert E. Fabricant to Acting Administrator Marianne L. Horinko, that revisited and formally withdrew a previous EPA General Counsel Memorandum prepared on April 10, 1998 by then-General counsel Jonathan Z. Cannon to Administrator Carol Browner. That earlier memo had found CO₂ to be an ‘air pollutant’ within the broad meaning of CAA Sec. 302(g) – “any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive...substance or matter which is emitted or otherwise enters ambient air.” *Id.*

⁴⁸⁸ See Jonathan H. Adler, “States’ Hot Suits”, NATIONAL REVIEW, Apr. 30, 2003), at: (<http://www.nationalreview.com/adler/adler043003.asp>).

⁴⁸⁹ Illinois, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont and Washington.

⁴⁹⁰ “The environmental groups bringing that legal action are Bluewater Network, Center for Biological Diversity, Center for Food Safety, International Center for Technology Assessment, Conservation Law Foundation, Environmental Advocates, Environmental Defense, Friends of the Earth, Greenpeace, National Environmental Trust, Natural Resources Defense Council, Sierra Club, the Union of Concerned Scientists and US Public Interest Research Group (PIRG).” See “States, Cities, Environmental Groups Sue Bush Administration on Global Warming, Challenge EPA’s Refusal to Reduce Greenhouse Gas Pollution”, Office of New York State Attorney General Eliot Spitzer, Press Release, Oct. 23, 2003, at: (http://www.oag.state.ny.us/press/2003/cot/oct23a_03.html). It is interesting to see these environmental groups act as though they wield the same level of credibility and authority with the American public and state legislators as their European counterparts actually do.

⁴⁹¹ See Jonathan H. Alder, “Life Chat: Legal and Economic Implications of State Attorneys General Lawsuit”, Sept. 9, 2004, at: (<http://www.globalwarming.org/article.php?uid=756>).

⁴⁹² See, “*Commonwealth of Massachusetts, et al vs. United States Environmental Protection Agency*, On Petition for Review of Final Action of the United States Environmental Protection Agency, Final Brief for the Intervenor States of Michigan, Texas, Idaho, North Dakota, Utah, South Dakota, Alaska, Kansas, Nebraska, and Ohio, and the *Amicus* State of Indiana in Support of Respondent United States Environmental Protection Agency”.

⁴⁹³ See “Pollution Lawsuits Put Michigan’s Economy at Risk – Gas-burning States Target the Midwest to Force a Reduction in Carbon Dioxide Emissions”, Editorials & Opinions, THE DETROIT NEWS, Sept. 13, 2004, at: (<http://www.detnewes.com/2004/editorial/0409/13/a08-271121.htm>). Arguably, even if the court rules in favor of the EPA, industry should recognize that they risk being whipsawed. On the one hand, it has increased pressures on states and municipalities to promulgate their own GHG regulatory regimes, potentially subjecting industry to patchwork of diverse and disparate policies. As the preceding discussion indicates, this has already occurred in the northeast and the west. On the other hand, it has emboldened certain members of Congress to once again propose federal climate change legislation. This is discussed in the next section of the paper.

⁴⁹⁴ See: No. 03-1361, *Commonwealth of Massachusetts, et al., v. Environmental Protection Agency, Alliance of Automobile Manufacturers et al.* at: (<http://www.nrdc.org/media/docs/050715.pdf>).

⁴⁹⁵ See: Darren Samuelsohn, "Split Court Upholds EPA Decision Not to Regulate Greenhouse Gases", Greenwire (7/15/05), at: (<http://www.eenews.net/Greenwire.php>); “Climate Change: States, Enviro Consider Appeal of Global Warming Decision” (7/15/05), at: (<http://www.greenwire.com>); “Court Fails to Decide EPA Authority to Regulate Global Warming Pollution - Split decision Poses No Obstacle to California Vehicle Emissions Standards”, Natural Resources Defense Council Press Release (7/15/05), at: (<http://www.nrdc.org/media>).

⁴⁹⁶ Opinion at pp. 5-10.

⁴⁹⁷ Opinion at p. 10.

⁴⁹⁸ Opinion at p. 15.

⁴⁹⁹ Opinion at p. 14.

⁵⁰⁰ Opinion at p. 15.

⁵⁰¹ Judge Sentelle’s opinion focused on the petitioners’ failure to establish all of the requirements set forth by the U.S. Supreme Court for demonstrating standing: 1) complainant; 2) suffers specific (‘particularized’) vs. general injury-in-fact; 3) fairly traceable to the challenged action or inaction (causation); AND 4) proof that the injury likely would be redressed by a favorable decision. *See* Sentelle Opinion at p. 1, citing *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992). The Sentelle Opinion, in particular, focused on the ‘injury’ requirement.

⁵⁰² Dissenting Opinion, at pp. 1-2, and p. 38.

⁵⁰³ Dissenting Opinion at p. 29. “The statutory standard, moreover is **precautionary**...[The federal CAA] Section 202(a)(1) now requires regulation to precede certainty...It requires regulation where, in the Administrator’s judgment, ‘emissions contribute to air pollution *which may reasonably be anticipated to endanger* public health or welfare...As the House Report explained, ‘In order to emphasize the **precautionary or preventative purpose of the act** (and, therefore, the Administrator’s *duty* to assess risks rather than wait for proof of actual harm), the [House] committee not only retained the concept of endangerment to health; the committee also added the words ‘may reasonably be anticipated to’”. *Id.*, citing H.R. Rep. No. 95-294, at 51) (italicized emphasis in original) (boldfaced emphasis added). Furthermore, according to Judge Tatel, “[T]he statutory standard—‘cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare’...gives the Administrator *no* discretion to withhold regulation for such reasons” (emphasis added), *Id.*, at p. 2.

⁵⁰⁴ “I believe that EPA has both misinterpreted the scope of its statutory authority and failed to provide a statutorily based justification for refusing to make an endangerment finding. I would thus grant the petitions for review.” Dissenting Opinion at p. 38.

⁵⁰⁵ California, Connecticut, Iowa, New Jersey, New York, Rhode Island, Vermont and Wisconsin.

⁵⁰⁶ The five companies were: 1) American Electric Power, Inc. – Columbus, OH – operates 12 utility companies; 2) Southern Company – Atlanta, GA - owns five utility companies; 3) Tennessee Valley Authority; 4) Xcel Energy, Inc. – Minneapolis, MN – owns five utility companies; and 5) Cinergy Corp. – Cincinnati, OH – operates four utility companies. *See* Pamela Najor, “Climate Change – Eight States to Announce Filing of Lawsuit Against Utilities to Reduce Carbon Dioxide”, Bureau of National Affairs, Inc. (July 21, 2004), at: (<http://www.bna.com/corp/index.html#V>).

⁵⁰⁷ *See* David A. Grossman, “Warming Up to a Not-So-Radical Idea: Tort-Based Climate Change Litigation”, *supra*, at 53-54.

⁵⁰⁸ *State of Connecticut, State of New York, People of the State of California Ex Rel Attorney General Bill Lockyer, State of Iowa, State of New Jersey, State of Rhode Island, State of Vermont, City of New York vs. U.S. America Electric Power Co., Inc., American Electric Power Service Corp., The Southern Co., Tennessee Valley Authority, EXCEL Energy, Inc. Cinergy Corp.*, U.S. District Court, Southern District of New York (7/21/04), at pars. 108-111, 112-115, 118-120, 121-127, 128-131, 132-140, 141, 142, 143-145 and 146, at: (<http://www.cslib.org/attygenla/press/2004/enviss/Global%20Warming%20Lawsuit.pdf>).

⁵⁰⁹ *See* Jonathan H. Adler, “Life Chat: Legal and Economic Implications of State Attorneys General Lawsuit” (Sept. 9, 2004), at: (<http://www.globalwarming.org/article.php?uid=756>).

⁵¹⁰ 731 F.2d 403 (C.A. Ill. 1984), “Appeal No. 77-2246 (the *Milwaukee case*) is here on remand from the Supreme Court of the United States. *Milwaukee v. Illinois*, 451 U.S. 304, 101 S.Ct. 1784, 68 L.Ed.2d 114 (1981) (*Milwaukee II*). Appeal No. 81-2236 is an interlocutory appeal in cases to which we shall refer as the Hammond cases.” (emphasis in original) *Id.*

⁵¹¹ 731 F.2d 403, 404. In the words of the court, “In...*Illinois v. City of Milwaukee*, 406 U.S. 91, 92 S.Ct. 1385, 31 L.Ed.2d 712 (1972) (*Milwaukee I*), the Supreme Court denied Illinois leave to file a bill of complaint under the Court’s original jurisdiction. *Illinois alleged pollution of Lake Michigan by the present defendants and other Wisconsin cities, and sought abatement of a public nuisance*. The Court held that the federal common law of nuisance would govern, and that a district court would have federal question jurisdiction...” (emphasis added). *Id.* “I have concluded that the case should be decided under the Federal common law of nuisance, but I further believe that the elements required under that cause of action are also the same elements which the Court would have to find under the two State claims...[I]t is federal common law and not state statutory or common law that controls in this case. *Illinois v. Milwaukee, supra*, 406 U.S. at 107 & n.9, 92 S.Ct. 1385 [at 1394 & n.9] and therefore we do not address the state law claims. 599 F.2d 151, 177 n. 53. In affirming as to liability and portions of the relief, we held that the federal common law of nuisance had not been preempted by 1972 FWPCA, the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. & 1251 et seq. (nor the 1977 Amendments to the Same Act).” 731 F.2d 403, 404. “The Supreme Court granted Milwaukee’s petition for certiorari...‘to consider the effect of [the 1972] legislation on the previously recognized cause of action.’...*The Court concluded that Congress had so completely*

occupied the field as to supplant federal common law. '[T]here is no basis for a federal court to impose more stringent limitations...by reference to federal common law...' *Milwaukee v. Illinois*, 451 U.S. 304, 320, 101 S.Ct. 1784, 1794, 68 L.Ed.2d 114 (1981) (*Milwaukee II*). The Court vacated the judgment of this court and remanded 'for proceedings consistent with this opinion.' [emphasis added]. . . In *Milwaukee I*, the [Supreme] Court held that the governing federal law was federal common law. In *Milwaukee II*, federal statutory law, the 1972 FWPCA, supplanted federal common law, but continued to preclude the application of state law to out-of-state discharges, except as affirmatively permitted by the 1972 FWPCA." 731 F.2d 403, 407. .

⁵¹² See Amanda Griscom Little, "On the Right Track – New Republican Leaders Emerging in Battle Against Climate Change", *Grist Magazine* (Feb. 4, 2005), at: (<http://www.grist.org>).

⁵¹³ See S. 342/H.R. 759. S.342 was later referred to the Senate on Environment and Public Works, while H.R. 759 was later referred to the Subcommittee on Environment, Technology and Standards. See "Bill Summary and Status for the 109th Congress, at: (<http://thomas.loc.gov/cgi-bin/bdquerytr/z?d109:SN00342>); (<http://thomas.loc.gov/cgi-bin/bdquery/z?d109:HR00759>); According to a February 2005 report released by the Natural Resources Defense Council, this most recent iteration of the CSA is less stringent in terms of emissions caps than its predecessors. "Starting in 2010, the CSA would cap emissions at the levels of 2000. (Earlier versions of the bill included a further phase-down to 1990 levels, but the current version does not include these reductions). See James Barrett, J. Andrew Hoerner and Jan Mutl, "Jobs and the Climate Stewardship Act; How Curbing Global Warming Can Increase Employment", for the Natural Resources Defense Council (Feb. 2005), at p. 9, at: (<http://www.nrdc.org/globalWarming/csa/CSAjobs.pdf>).

⁵¹⁴ See, e.g., "Sens McCain and Lieberman Reintroduce the Climate Stewardship Act", *Environmental Defense Fund* (2/10/05), at: (<http://www.environmentaldefense.org/article.cfm?contentid=4314>); "The World Supports the McCain-Lieberman Climate Bill – Time for the United States to Start Addressing Climate Change", *Climate Ark* (3/19/05), at: (<http://www.climateark.org/action/alert.asp?id=climate>).

⁵¹⁵ See "U.S. Senate Rejects Mandatory Emissions Cuts", *Reuters* (6/22/05). "Bush will attend a Group of Eight meeting in early July, hosted by British Prime Minister Tony Blair, who wants to focus on global warming. 'Tony Blair has put unmitigated pressure on this president. He's even lobbied us individually on it, suggesting we ought to get this president to change his mind,' said Sen. Larry Craig, an Idaho Republican. 'The Senate spoke yesterday.'" *Id.*

⁵¹⁶ See Amendment 866 to H.R. 6, "Sense of the Senate on Climate Change", which failed by a vote of 53-44 on June 22, 2005, at:

(http://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=109&session=1&vote=00149); "Congressional Record-Senate at pp. S7033-7037 (6/22/05), at:

(http://frwebgate.access.gpo.gov/cgi-bin/getpage.cgi?position=all&page=S7033&dbname=2005_record).

⁵¹⁷ See H.R. 6, at: (<http://finance.senate.gov/sitepages/leg/leg062005.pdf>). The legislation has since moved into conference with the House.

⁵¹⁸ The "Sense of the Senate on Climate Change" resolution was offered by Senators Bingaman (D-NM), Specter (R-PA), Byrd (D-WV), and Domenici (R-NM)". See "Senate Says: U.S. Must Enact Mandatory Limits On Global Warming Pollution, Time Has Come For Real Action", *PR Newswire* (6/22/05), at: (<http://www.climateark.org/articles/reader.asp?linkid=43285>).

⁵¹⁹ See "SEC. 16__ SENSE OF THE SENATE ON CLIMATE CHANGE", at: (<http://thomas.loc.gov/cgi-bin/query/F?r109:1:./temp/~r109GfDokO:e504232>).

⁵²⁰ Senator Hagel, along with Senator Byrd, had previously, in 1997, cosponsored Senate (Byrd-Hagel) resolution 98 that called on President Clinton to reject the Kyoto Protocol because it had failed to take into account developing countries and would have severely impacted U.S. economic growth. That resolution had passed by a vote of 95-0.

⁵²¹ See "U.S. Senate Rejects Mandatory Emissions Cuts", *supra*; "Senate Resolution Backs Mandatory Emissions Limits", *News of the Week, Science*, Vol. 309 (July 1, 2005), at p. 32, at: (www.sciencemag.org).

⁵²² See "Two Different Approaches for Addressing Climate Change Proposed to U.S. Senate", *Climate Action News, California Climate Action Registry* (Mar. 2005), at: (<http://www.climateregistry.org>).

⁵²³ "Lieberman/McCain Introduce Emissions Trading Bill", *Environmental Markets Update*, Vol. 1, No. 1 (Jan. 20, 2003), at: (<http://www.emissions.org>); "Summary of Lieberman/McCain Draft Proposal on Climate Change", Senator Lieberman Press Office (Jan. 8, 2003), at:

(<http://lieberman.senate.gov/press/03/01/2003108655.html>); Cheryl Hogue, "Greenhouse Gas Emissions Curb – Senators Launch Legislative Effort for U.S. Cap and Trade System", *CHEMICAL & ENGINEERING NEWS* (Jan. 13, 2003), at: (<http://pubs.acs.org/cen/topstory/8102/print/8102notwl.html>).

⁵²⁴ Senator Byrd was the fourth co-sponsor of S. 386, but did not cosponsor the other bills. He supported the international bill most likely because of the ‘clean coal technologies that West Virginian companies could readily export to developing countries.

⁵²⁵ S. 386, “Title: A bill to direct the Secretary of State to carry out activities that promote the adoption of technologies that reduce greenhouse gas intensity in developing countries, while promoting economic development, and for other purposes.” See “Bill Summary & Status for the 109th Congress”, at: (<http://thomas.loc.gov>). See also, related bill S.883, “Climate Change Technology Deployment in Developing Countries Act of 2005”, introduced on April 21, 2005. Both bills propose to amend “Title VII of the Global Environmental Protection Assistance Act of 1989”. Id.

⁵²⁶ S. 387, “Title: A bill to amend the Internal Revenue Code of 1986 to provide tax incentives for the investment in greenhouse gas intensity reduction projects, and for other purposes.” “Bill Summary & Status for the 109th Congress”, at: (<http://thomas.loc.gov>). For example, tax incentives to promote investments in clean coal technology similar to that contained in S.387 appear to have made their way into the Energy Policy Tax Incentives Act of 2005, incorporated within H.R. 6. See “Sec. 1506 – Credit for Investment in Clean Coal Facilities” and “Sec. 1507: Clean Coal Energy Bonds”, at: pp. 32-51 and 51-65, at: (<http://finance.senate.gov/sitepages/leg/leg062005.pdf>).

⁵²⁷ S. 388, “Title: A bill to amend the Energy Policy Act of 1992 to direct the Secretary of Energy to carry out activities that promote the adoption of technologies that reduce greenhouse gas intensity and to provide credit-based financial assistance and investment protection for projects that employ advanced climate technologies or systems, to provide for the establishment of a national greenhouse gas registry, and for other purposes.” “Bill Summary & Status for the 109th Congress”, at: (<http://thomas.loc.gov>).

⁵²⁸ See, e.g., Amendment No. 817, made to H.R.6, dated June 21, 2005, at: (http://energy.senate.gov/public_files/Hagelclimatechange.pdf); “S.AMDT.817: Text of Amendments - (Senate – June 21, 2005), S.6950-S.6957, at: (<http://thomas.loc.gov/cgi-bin/query/R?r109:FLD001:S06951>). See also, “U.S. Senate Roll Call Votes 109th Congress - 1st Session, On the Amendment (Hagel Amdt. No. 817), at: (http://www.senate.gov/legislative/LIS/roll_call_lists/roll_call_vote_cfm.cfm?congress=109&session=1&vote=00144).

⁵²⁹ See discussion, at fns 418-420, *supra*.

⁵³⁰ Perhaps, this provision should have been made more specific so that it squarely addressed this latter situation. For example, it could have stated that the USTR shall take whatever actions it deems necessary, consistent with current WTO law, to ensure that Kyoto parties do not discriminate against or otherwise arbitrarily restrict or prohibit (i.e., without scientific, technical or economic justification) U.S. energy, products, technologies or service exports (based on the amount of GHGs emitted during their generation, manufacture, processing, use or delivery) so as to create unnecessary obstacles to trade, where other less trade restrictive alternatives are available to address legitimate national health and environmental policy objectives.

⁵³¹ The Kyoto Protocol's Clean Development Mechanism is available to all exporters whether or not their governments are Kyoto parties. The goal of that treaty provision is to promote the use of clean technologies (technology transfer) in developing countries. It allows treaty and non-treaty parties to earn GHG credits for domestic or international use by working on projects in developing countries.

⁵³² Senator Hagel has claimed that he “remains a staunch opponent of regulatory caps on greenhouse-gas emissions, arguing that the marketplace will evolve toward energy efficiency without government mandates... ‘Any time you put mandatory caps on any program – which I’m opposed to – you are going to have a consequence from that, and I don’t think it’s going to be a good consequence. You will lower productivity standards, you will lower efficiency standards, you will lower job choices, and you will lower the whole quality economic dynamic when you try and artificially cap energy use...[A] market-based cap-and-trade program to accelerate innovation of clean technologies...[is] not good for the market. That’s not good or smart for anybody because that doesn’t let the marketplace work finding its own efficiencies. That’s why I’m always opposed to those kinds of remedies and I’m opposed to McCain-Lieberman...What cap-and-trade does is it picks winners and losers. It has nothing to do with innovation. It throws off the natural market system that does work’” (emphasis added). See Amanda Griscom Little, “The Chuck Stops Here – An Interview With Sen. Chuck Hagel, Republican From Nebraska, On His New Climate Bills”.

⁵³³ See Nicholas C. Franco, “Corporate Environmental Disclosure: Opportunities to Harness Market Forces to Improve Corporate Environmental Performance”, presented to the American Bar Association, Section on Environment, Energy, and Resources, (Mar. 8-11, 2001), at 7. In making this statement it relied on the results of several public company surveys and studies. They included a 1992 Price Waterhouse study concerning the accrual of *known environment-related exposures*, a 1996 study concerning environmental

disclosure of *known CERCLA potentially responsible parties*, and a 1998 EPA study focusing on disclosure of *environmental legal proceedings*. *Id.*

⁵³⁴ *Id.*, at 8.

⁵³⁵ *Id.* at 7-8.

⁵³⁶ “Additionally disclosures [made]...pursuant to Regulation S-K Items 101 and 103...must be discussed in the MD&A section if they will have an unfavorable impact on the financial condition of the company.” *See* “Corporate Environmental Disclosure”, *supra* note 339 at 12.

⁵³⁷ In this regard, the SEC has emphasized that ‘reasonably likely’ is a lesser standard than ‘more likely than not’. Under this standard, doubts about the likelihood that an event or uncertainty will occur, or will be ‘material’, should be resolved in favor of disclosure.

⁵³⁸ According to SEC officials, in determining whether information is ‘material’, the agency relies on the [US] Supreme Court’s statement that, ‘an omitted fact is material if there is a substantial likelihood that a reasonable shareholder would consider it important in deciding how to vote.’ *See, Basic, Inc. v. Levinson*, 485 U.S. 224, 231 (1988), citing *TSC Industries v. Northway, Inc.* 426 U.S. 438, 449 (1976). Guidance issued by the Financial Accounting Standards Board (FASB) states that the omission of an item in a financial report is material, if, in light of surrounding circumstances, the magnitude of the item is such that it is probable that the judgment of a reasonable person relying on the report would have changed or been influenced by the inclusion or correction of the item.” “Environmental Disclosure – SEC Should Explore Ways to Improve Tracking and Transparency of Information”, United States Government Accountability Office, Report to Congressional Requesters GAO-04-808 (July 2004), at 10.

⁵³⁹ “The Commission has long recognized the need for a narrative [non-financial] explanation of the financial statements, because numerical presentations and brief accompanying footnotes alone may be insufficient for an investor to judge the quality of earnings and the likelihood that past performance is indicative of future performance. *MD&A is intended to give the investor an opportunity to look at the company through the eyes of management by providing both a short and long-term analysis of the business of the company*” (emphasis added). *See* Securities Act Release Nos. 33-8056; 34-45321; FR-61 (Jan. 22, 2002), citing Securities Act Release No. 6711 (April 17, 1987), Concept Release on Management’s Discussion and Analysis of Financial Condition and Results of Operations, 52 Fed. Reg. 13715.

⁵⁴⁰ *Id.*, Sec. III.B.1. Focus on Materiality.

⁵⁴¹ *Id.*, Sec. III.B.1. Focus on Materiality.

⁵⁴² *Id.*, Sec. III.A. Presentation of MD&A.

⁵⁴³ *Id.*, Sec. III.B.3 Focus on Material Trends and Uncertainties, and fn 37, citing Securities Act Release Nos. 33-8056; 34-45321; FR-61 (Jan. 22, 2002).

⁵⁴⁴ Private Securities Litigation Reform Act of 1995 (securities class action lawsuits).

⁵⁴⁵ “Disclosure is *mandatory* where there is a *known trend or uncertainty* that is *reasonably likely to have a material effect* on the registrant’s financial condition or results of operations. Accordingly, the development of MD&A disclosure should begin with management’s identification and evaluation of what information, *including the potential effects of known trends, commitments, events, and uncertainties*, is important to providing investors and others an accurate understanding of the company’s current and prospective financial position and operating results...Required disclosure is based on currently known trends, events, and uncertainties that are reasonably expected to have material effects...In contrast, *optional forward-looking disclosure involves anticipating a future trend or event or anticipating a less predictable impact of a known event, trend or uncertainty*” (emphasis added). *See* Securities Act Release No. 6835 (May 18, 1989), Management’s Discussion and Analysis of Financial Condition and Results of Operations, 54 Fed. Reg. 22427, 22438.

⁵⁴⁶ *See* Financial Accounting Standards Board No. 5.

⁵⁴⁷ AICPA guidance provides that companies must disclose the risks and uncertainties of their estimates when it is at least reasonably possible that the estimates will change in a way that is ‘material’ to the financial statements within the next year.

⁵⁴⁸ *See* “Revised Petition SEC File# 4-463”, at:

(http://www.rosefdn.org/images/SEC_Enviro_Disclosure_Pet.pdf). “In submitting this petition, we note that many investors and organizations, including but not limited to the Social Investment Forum, Shareholder Action Network, Friends of the Earth, World Resources Institute, United Steelworkers of America, Health Care Without Harm, Trillium Asset Management, Calvert Group, Domini Social Investments, Walden Asset Management and Citizens Funds have all previously communicated with the Commission urging increased attention to social and environmental disclosure.” *Id.* *See also*, “Request for Rulemaking for Clarification of Material Disclosures With Respect to Financially Significant Environmental Liabilities and Compliance with Existing Material Financial Disclosures”, at: (<http://www.sec.gov/rules/petitions/petn4-463.htm>).

⁵⁴⁹ The corporate social responsibility and environmental movements and left-leaning academics and politicians submitted a host of comments supporting this petition. See “Comments on Rulemaking Petition: Clarification of Material Disclosures With Respect to Financially Significant Environmental Liabilities and Compliance with Existing Material Financial Disclosures - [File No. 4-463]”, at: (<http://www.sec.gov/rules/petitions/4-463.shtml>).

⁵⁵⁰ American Society for Testing and Materials (ASTM) is a U.S. national standards body that participates in the U.S. and international standards development process.

⁵⁵¹ See Gregory Bibler and Christopher P. Davis, “Disclosing Environmental Liabilities in the Wake of Sarbanes-Oxley”, The Metropolitan Corporate Counsel, Goodwin Proctor (April 2003).

⁵⁵² See Susannah Blake Goodman and Tim Little, “The Gap in GAAP – An Examination of Environmental Accounting Loopholes”, The Rose Foundation for Communities and the Environment Fiduciary Project (Dec. 2003), at: p. 14.

⁵⁵³ *Id.*, See Example.

⁵⁵⁴ *Id.*

⁵⁵⁵ See Petition 4-463.

⁵⁵⁶ Susannah Blake Goodman and Tim Little, “The Gap in GAAP – An Examination of Environmental Accounting Loopholes”, at p. 15.

⁵⁵⁷ *Id.*, at p. 16.

⁵⁵⁸ See: Gregory Bibler and Christopher P. Davis, “Disclosing Environmental Liabilities in the Wake of Sarbanes-Oxley”, *supra*. Disclosure of the following minimum information would be required: “1) [T]he number of sites for which the company has been named a PRP [potentially responsible party] and the number of claims, suits, actions, demands, requests for payment, notices, or cases that have been presented to the company; 2) [A]n estimate of the company’s environmental liabilities and a description of the approach used to estimate those liabilities; 3) [T]he cost estimation methodology employed by the company for accrued liabilities; 4) [A] characterization of any material loss contingencies; and 5) [T]he nature and terms of cost-sharing arrangements with other PRPs.” *Id.*

⁵⁵⁹ The U.S. Supreme Court, in *TSC Industries Inc., v. Northway, Inc.*, held that “materiality should not be so expansive as to result in shareholders being bur[ie]d in an avalanche of trivial information.”

⁵⁶⁰ Corporate Sunshine December 2002 Bulletin. See GAO Report, at 2,

⁵⁶¹ See “Environmental Disclosures in Financial Statements: New Developments and Emerging Issues”, Event Report, *supra*.

⁵⁶² *Id.*, at vi.

⁵⁶³ “Despite the fact that they may be expected to report on such issues on the basis of existing regulations, it is unlikely that a lawyer would advise a client company’s management that the company would face court action...because regulations pertaining to environmental liability disclosure have historically rarely been enforced.” *Id.*

⁵⁶⁴ *Id.* In this regard, what are considered significant material environmental liabilities from an accounting perspective is narrowly defined by SEC Regulation. “What is considered minimum or adequate [disclosure] in the US is less than in the European Union. Nations including France and Denmark already have mandatory reporting of environmental issues in financial statements. The United Kingdom and the Netherlands are expected to follow suit shortly. Though this merging of financial and non-financial information into the same report is not yet mandatory in North America...it will be in time.”

⁵⁶⁵ *Id.*

⁵⁶⁶ See William Baue, “Members of Congress Consider Social and Environmental Disclosure in SEC Filings”, July 10, 2003, at: (<http://www.socialfunds.com/news/print.cgi?sfArticleId=1170>). “Co-sponsors of the event included Senators James Jeffords, Joe Lieberman and John McCain, as well as Representatives Lloyd Doggett, Henry Waxman, and Barbara Lee, among others. Speakers included Commissioner Harvey Goldschmid of the SEC, Doug Cogan, IRRC’s deputy director of social issues and author of the CERES report, and Treasurer Denise Nappier of the state of Connecticut. said Treasurer Nappier, who is the principal fiduciary of Connecticut’s \$18 billion public pension fund...Peter Lehner, assistant attorney general-in-charge of the environmental protection bureau of the office of New York State Attorney General Eliot Spitzer, spoke...Speakers also included Thomas Palley of George Soros’ Open Society Institute and Jill Ratner, President of the Rose Foundation for Communities and the Environment, and William Patterson, director of the AFL-CIO’s office of investment.” *Id.*

⁵⁶⁷ *Id.*

⁵⁶⁸ *Id.*

⁵⁶⁹ See “Environmental Disclosure – SEC Should Explore Ways to Improve Tracking and Transparency of Information”, United States Government Accountability Office, Report to Congressional Requesters GAO-04-808 (July 2004).

⁵⁷⁰ *Id.*, at 36. “The adequacy of SEC’s efforts to monitor and enforce compliance with environmental disclosure requirements cannot be determined without more definitive information on the extent of environmental disclosure and the results of the SEC’s oversight process.” Highlights to GAO-04-808.

⁵⁷¹ See “Environmental Disclosure – SEC Should Explore Ways to Improve Tracking and Transparency of Information”, *supra*, at 36. “SEC does not systematically track the issues raised in its reviews of companies’ filings and thus, does not have the information it needs to analyze the frequency of problems involving environmental disclosure, compared with other types of disclosure problems; identify trends over time or within particular industries; or identify areas in which additional guidance may be warranted.” Highlights to GAO-04-808.

⁵⁷² “GAO recommend[ed] that SEC take steps to improve the tracking and transparency of information related to its reviews of companies’ filings, and to work with the Environmental Protection Agency to explore ways to take better advantage of EPA data relevant to environmental disclosure. SEC agrees with GAO’s recommendations and is taking action, by example, making comment letters and company responses available on its Web site, beginning with the August 2004 filings.” *Id.*

⁵⁷³ *Id.*

⁵⁷⁴ See Sanford Lewis and Tim Little, “Fooling Investors & Fooling Themselves – How Aggressive Corporate Accounting & Asset Management Tactics Can Lead to Environmental Accounting Fraud” (July 2004).

⁵⁷⁵ *Id.*, at 28.

⁵⁷⁶ *Id.*

⁵⁷⁷ *Id.*, at 30.

⁵⁷⁸ *Id.*, at 35.

⁵⁷⁹ See “Revised Information Quality Bulletin for Peer Review”, Office Of Management and Budget (Apr. 15, 2004).

⁵⁸⁰

⁵⁸¹ See, “Coordinated Framework for Regulation of Biotechnology”, Office of Science and Technology Policy, Executive Office of the President, Office of Science and Technology Policy, 51 Fed. Reg. 23302 (June 26, 1986).

⁵⁸² *Id.*

⁵⁸³ *Id.*

⁵⁸⁴ *Food Regulation and Trade, supra*, note 374 at 162-163.

⁵⁸⁵ These laws included the Food and Drug Act, Federal Plant Pest Act, The Plant Quarantine Act, The Toxic Substances Act (TSCA), and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). See “United States Regulatory Oversight in Biotechnology, Responsible Agencies – Overview”, at: (<http://www.aphis.usda.gov/bras/usregs.html>).

⁵⁸⁶ *Id.*, at 6.

⁵⁸⁷ Biotech products now include more advanced products such as, “gene-altered fish and insects, farm animals that produce human drugs in their milk and plants that make drugs (pharma-crops) or industrial compounds in their leaves and seeds.” *Id.*

⁵⁸⁸ “Two plans have been widely discussed in Washington. One would create a system of voluntary consultations between the FDA and the biotech industry...A stricter plan...would regulate the animals under a statute originally designed for new animal drugs, and would involve detailed, mandatory reviews of food safety.” See Justin Gillis, “Biotech Regulation Falls Short, Says Pew Report”, W. POST, Apr. 1, 2004, at: (<http://www.washingtonpost.com/wp-dyn/articles/A40595-2004March31.htm>).

⁵⁸⁹ *Id.*

⁵⁹⁰ *Id.*

⁵⁹¹ *Id.*

⁵⁹² *Id.*

⁵⁹³ See “Grassley Co-Sponsors Clinical Trial Registry Legislation”, U.S. Senate Committee on Finance, Press Release (Feb. 28, 2005).

⁵⁹⁴ “FDA Launches Drug Safety Board”, USA TODAY, Feb. 15, 2005, at: (http://www.usatoday.com/news/washington/2005-02-15-fda-board_x.htm).

⁵⁹⁵ See David Hanson, “FDA Creates Panel on Drug Safety – New Safety Board is a Step Forward, But Critics Question its Independence”, CHEMICAL & ENGINEERING NEWS, Vol. 83, No. 8 (Feb. 21, 2005), at: (<http://pubs.acs.org/cen/news/83/i08/print/8308notw3.html>).

⁵⁹⁶ *Id.*

⁵⁹⁷ See Ricardo Alonso-Zaldivar, “Senators Consider Safety Reform at FDA”, L.A. TIMES, Mar. 4, 2005, at: (http://www.latimes.com/news/printedition/asection/la-na-fda4mar04.1.3040236.story?coll=la-news-a_section&ctrack=1&cset=true).

⁵⁹⁸ See Emmas Marris, “FDA Critics Slam Plan For Safety Reform – Calls Grow for Independent Supervision of US Drug Regulation” (Feb. 17, 2005), at: (http://www.nature.com.com/news/2005/050214/pf/050214-11_pf.html).

⁵⁹⁹ See Karl Thiel, “Will the FDA Kill Biotech”, The Motley Fool (Jan. 28, 2005), at: (<http://www.fool.com>).

⁶⁰⁰ See Matthew Herper, “Big Pharma’s Ails Could Spread to Biotech”, Forbes.com (Jan. 25, 2005).

⁶⁰¹ They include, avoparcin, bacitracin, spiramycin, tylosin and virginiamycin. See “Council and Parliament Prohibit Antibiotics as Growth Promoters: Commissioner Byrne Welcomes Adoption of Regulation on Feed Additives”, EU Institutions Press Releases, IP/03/1058 (July 22, 2003).

⁶⁰² See Mark Casell, Christian Friis, Enric Marco, et al., “The European Ban on Growth-Promoting Antibiotics and Emerging Consequences for Human and Animal Health”, Journal of Antimicrobial Chemotherapy (July 2003) 52, at 159-61.

⁶⁰³ *Id.*, at 160-161.

⁶⁰⁴ See “#152 - Guidance for Industry – Evaluating the Safety of Antimicrobial New Animal Drugs With Regard to Their Microbiologic Effects on Bacteria of Human Concern”, U.S. Department of Health and Human Services, Food and Drug Administration, Center for Veterinary Medicine (Oct. 23, 2003).

⁶⁰⁵ See Anna Wilde Matthews, “FDA Announces Policy Designed to Curb Animal-Antibiotics Use”, WALL ST. J. (Oct. 24, 2003), at A6.

⁶⁰⁶ *Id.*, at 3.

⁶⁰⁷ “The hazard has been defined as human illness, caused by an antimicrobial-resistant bacteria, attributable to an animal-derived food commodity, and treated with the human antimicrobial drug of interest.” *Id.*, at 8.

⁶⁰⁸ “FDA recommends that sponsors address the hazard characterization step of the risk assessment by submitting information regarding the chemical, biochemical, microbiological, and physical properties of the antimicrobial new animal drug that bear on characterizing the downstream effects of the drug. This information may include, but not be limited to: drug-specific information, bacterial resistance information, data gaps and emerging science.” *Id.*, at 9.

⁶⁰⁹ *Id.*, at 6.

⁶¹⁰ The document states that its risk analysis process is based on the risk analysis methodology developed by the Office International des Epizooties (OIE) Ad Hoc Group on Antimicrobial Resistance, a recognized international scientific body.

⁶¹¹ *Id.*, at 5.

⁶¹² *Id.*, at 8.

⁶¹³ *Id.*, at 8.

⁶¹⁴ The [qualitative] risk assessment approach is comprised of a release assessment, an exposure assessment, a consequence assessment, and a risk estimation.” *Id.*, at 9.

⁶¹⁵ *Id.*, at 8.

⁶¹⁶ *Id.*, at 10.

⁶¹⁷ *Id.*

⁶¹⁸ “The High Production Volume (HPV) Challenge Program is a voluntary initiative aimed at developing and making publicly available screening-level health and environmental effects information on chemicals manufactured in or imported into the United States in quantities greater than one million pounds each year... U.S. producers and importers of HPV chemicals voluntarily sponsor chemicals. Sponsorship entails the identification and initial assessment of the adequacy of existing information, the conduct of new testing (if adequate data does not exist) and making the new and existing test results available to the public... Each completed submission contains data on 18 internationally agreed to ‘SIDS’ (Screening Information Data Set) endpoints that are used as screening-level indicators of potential hazardous effect (toxicity) for humans or the environment, as well as environmental fate.” See “HPV Chemical Screening Process – DRAFT”, U.S. Environmental Protection Agency, National Pollution Prevention and Toxics Advisory Committee (NPPTAC), Office of Pollution Prevention and Toxics (OPPT) (Jan. 2005).

⁶¹⁹ *Id.*

⁶²⁰ See “Status and Future Directions of the High Production Volume Challenge Program”, Office of Pollution Prevention and Toxics, United States Environmental Protection Agency (2004), at 10.

⁶²¹ *Id.*, at 6.

⁶²² *Id.*

⁶²³ The EPA’s “guidance document[s] on development of chemical categories provide[] guidance on approaches and issues encountered in category formation and application under the HPV Challenge Program.

⁶²⁴ SIDS (Screening Information Data Set) was developed by the Organization for Economic Cooperation and Development (OECD).

⁶²⁵ *Id.*, at 8-9.

⁶²⁶ See Lawrence A. Kogan, “Exporting Europe’s Protectionism”, NATIONAL INTEREST, *supra*, at 95.

⁶²⁷ *Id.*, at 7-8.

⁶²⁸ See “HPV Chemical Screening Process – Draft Recommendation”, National Pollution Prevention and Toxics Advisory Committee (NPPTAC) (Jan. 2005) at 1-2.

⁶²⁹ See “May 13, 2004, Public Meeting Summary”, U.S. Environmental Protection Agency National Pollution Prevention and Toxics Advisory Committee (NPPTAC), at 3-4.

⁶³⁰ See also “HPV Chemical Screening Process – Draft Recommendation”, National Pollution Prevention and Toxics Advisory Committee (NPPTAC), “Attachment A – Guidance for Sorting Chemicals for Further Review”, at 6.

⁶³¹ Environmentalists have made it no secret that they desire a reform of TSCA. See “The Promise and Limits of the United States Toxic Substances Control Act”, Lowell Center for Sustainable Production (Oct. 10, 2003), at: (http://www.chemicalspolicy.org/downloads/Chemicals_Policy_TSCA.doc); Peter Montague, “The Toxic Substances Control Act”, Rachel’s Environment and Health News (2004), at: (http://www.garynull.com/Documents/erf/toxic_substances_control_act.htm).

⁶³² Some legislators have called for revisions to TSCA and FIFRA that incorporate the precautionary principle and hazard-based (rather than risk-based) assessment. These calls were made during hearings held by the House Commerce and Energy Committee during July 2004. The hearings reviewed TSCA and FIFRA legislative amendments proposed by Congressman Gillmor to implement U.S. obligations that would be assumed upon U.S. ratification of several international treaties. Those treaties included the Stockholm Convention on Persistent Organic Pollutants and the Rotterdam Convention on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

⁶³³ See Report GAO-05-458 entitled, “Options Exist to Improve EPA’s Ability to Assess Health Risks and Manage Its Chemical Review Program” (7/13/05), at: (<http://www.gao.gov/new.items/d05458.pdf>); Report Highlights at: (<http://www.gao.gov/highlights/d05458high.pdf>); Report Abstract at: (<http://www.gao.gov/docsearch/abstract.php?rptno=GAO-05-458>).

⁶³⁴ Senator Jeffords is the Ranking Minority Member of the Senate Committee on Environment and Public Works. That committee held hearings last year concerning the proposed amendment of TSCA and FIFRA for purposes of implementing three precautionary principle-based international chemicals treaties the ratification of which the U.S. was then considering. They are the Stockholm Convention on Persistent Organic Pollutants (‘POPs’), the 1998 Protocol to the 1979 Convention on Long-Range Transboundary Air Pollution (‘LRTAP’), and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (‘PIC Procedure’). See Lawrence A. Kogan, “‘Enlightened Environmentalism or Disguised Protectionism: Assessing the Impact of EU Precaution-based Standards on Developing Countries”, *supra*, at pp.19-20, fns 50-52 and p. 77, fns 287, 289 and 290-291.

⁶³⁵ See GAO-05-458, at pp. 29-30, “Canada and the EU Are Moving Toward Greater

Control of Existing Chemicals” and Appendix II, “Canadian and EU Chemical Legislation”, at pp. 42-49.

⁶³⁶ “EPA does not routinely assess the risks of all existing chemicals and EPA faces challenges in obtaining the information necessary to do so. TSCA’s authorities for collecting data on existing chemicals do not facilitate EPA’s review process because they generally place the costly and time-consuming burden of obtaining data on EPA.” See Highlights at p. 2.

⁶³⁷ “EPA has limited ability to publicly share the information it receives from chemical companies under TSCA. TSCA prohibits the disclosure of confidential business information, and chemical companies claim much of the data submitted as confidential. While EPA has the authority to evaluate the appropriateness of these confidentiality claims, EPA states that it does not have the resources to challenge large numbers of claims. State environmental agencies and others are interested in obtaining confidential business information for use in various activities...” See Highlights at p. 2. “The Congress could revise its regulations to require that companies reassert claims of confidentiality submitted to EPA under TSCA within a certain time period after the information is initially claimed as confidential.” GAO-05-458 at p. 37.

⁶³⁸ “The Congress could promulgate a rule under section 8 of TSCA requiring chemical companies to submit to EPA copies of any health and safety studies, as well as other information concerning the environmental and health effects of chemicals, that they submit to foreign governments on chemicals that the companies manufacture or process in, or import to, the United States. [*Id.*, at p. 37]... We believe that having access to the information submitted to foreign governments would provide EPA with an important source of

information that would be useful for assessing the risks of existing chemicals and improving the models that EPA uses to assess new chemicals.” *Id.*, at p. 38.

⁶³⁹ “The Congress could develop a strategy for improving and validating, for regulatory purposes, the models that EPA uses to assess and predict the risks of chemicals and to inform regulatory decisions on the production, use, and disposal of the chemicals.” *Id.*, at p. 37.

⁶⁴⁰ “The Congress could amend TSCA to reduce the evidentiary burden that EPA must meet to take regulatory action under the act by (1) amending the unreasonable risk standard that EPA must meet to regulate existing chemicals under section 6 of TSCA, (2) amending the standard for judicial review that currently requires a court to hold a TSCA rule unlawful and set it aside unless it is supported by substantial evidence in the rulemaking record, or (3) amending the requirement that EPA must choose the least burdensome regulatory requirement... The Congress could authorize EPA to regulate existing chemicals when it identifies “significant,” rather than “unreasonable,” risks of injury to health or the environment ... The Congress could amend TSCA to require that EPA demonstrate that a chemical “may present” an unreasonable risk, rather than requiring a demonstration that a chemical “presents or will present” an unreasonable risk. The Congress could amend the... the substantial evidence standard... for judicial review to instead reflect a rational basis test to prevent arbitrary and capricious administrative decisions” (emphasis added). See Appendix III, “Additional Options for Strengthening EPA’s Ability to Assess and Regulate Chemicals under TSCA”, at pp. 50-51. In addition, “The Congress could amend or repeal the [TSCA statutory] requirement, [as] articulated by the courts, that after an initial showing of product danger, EPA must consider each regulatory option, beginning with the least burdensome, and the costs and benefits of each option” (emphasis added). *Id.*, at p. 52.

⁶⁴¹ See Dana Joel Gattuso, “Mandated Recycling of Electronics: A Lose-Lose-Lose Proposition”, for the Competitive Enterprise Institute (Feb. 1, 2005) at p. 21 and fn 89, citing U.S. Congress, House of Representatives, HR 1165, at <http://thomas.loc.gov>. “The bill was referred in March 2003 to the House Environment and Hazardous Materials Subcommittee, where there has been no further action. It is almost identical to a bill Rep. Thompson introduced in 2002 (H.R. 5158) that did not advance beyond the House Subcommittee.” *Id.*

⁶⁴² See Stephen Usery, “Going Nationwide, Waste Age Magazine (3/1/05), at: (http://wasteage.com/mag/waste_going_nationwide_2/).

⁶⁴³ *Id.*

⁶⁴⁴ *Id.*

⁶⁴⁵ See The ‘Tax Incentives to Encourage Recycling Act of 2005’ or the ‘TIER Act of 2005’, introduced during the 109th Congress on January 25, 2005, at: (<http://thomas.loc.gov/cgi-bin/query/z?c109:H.R.320>); (<http://thomas.loc.gov/cgi-bin/query/z?c109:H.R.320.IH>).

⁶⁴⁶ See Dana Joel Gattuso, “Mandated Recycling of Electronics: A Lose-Lose-Lose Proposition”, citing Linda Roeder, “Recycling: Commerce Department Officials Will Submit ‘Road Map’ to Congress on Electric Waste,” *Daily Environment Report*, BNA, September 22, 2004.

⁶⁴⁷ *Id.*, at fn 91.

⁶⁴⁸ “Supply chain management is the integration of key business processes from end user through original suppliers, which provides products, services, and information that add value for customers and other stakeholders.” See D.M. Lambert, M.C. Cooper, and J.D. Pagh, “Supply Chain Management: Implementation Issues and Research Opportunities”, *The International Journal of Logistics Management*, Vol. 9, No. 2 (1998), at: (<http://www.ijlm.org>).

⁶⁴⁹ International lawyers often distinguish between ‘hard’ and ‘soft’ law. Such a distinction, it is said, has “at least two meanings. First, the distinction may refer to the difference between rules of law meant to be followed and norms meant merely to set out preferred outcomes... Second, the distinction between ‘hard’ and ‘soft’ law may refer to the difference between formal sources of law (such as treaties) and instruments that are not formally legal sources (such as mutual declarations of government leaders issued at the end of a diplomatic conference). Such declarations may contain ‘non-binding’ statements of principle.” See Mark W. Janis and John E. Noyes, *International Law – Cases and Commentary* (West Group © 2001), at 39.

⁶⁵⁰ For example, one of the segments at an International IEEE Conference on Asian Green Electronics held in Hong Kong during January 5-6, 2004, that was prepared by four European professors from the Fraunhofer Institute for Reliability and Microintegration addressed supply chain management. In addition, several special lectures were held concerning the EU’s EuE, RoHS and WEEE directives. They were entitled: “Sustainability, Supply Chain in Electronics and Future European Directives i.e., EuE (EU Directive on Establishing a Framework for Eco-design of End-Use Equipment); Legal Requirements and Environmental Optimized Manufacturing of PCBs and Semiconductor Components; RoHS (EU Directive on Restriction on

Certain Use of Hazardous Substances in Electrical and Electronic Equipment) and Demands on Green Products, especially lead free; and WEEE (EU Directive on Waste From Electrical and Electronic Equipment) and Recyclability of Electronic Products”. See Abstract for Asian Green Electronics Conference (AGEC), at: (<http://www.ee.cityu.edu.hk/~agec/short.htm>).

⁶⁵¹ “Co-regulation is defined as a mechanism whereby a Community legislative act entrusts the attainment of the objectives defined by the legislative authority to parties which are recognized in the field (e.g., economic operators, the social partners, non-governmental organizations or European associations).” See Provisional 2003/2131 (ACI), “Draft Report On the Conclusion of the Agreement Between the European Parliament, the Council and the Commission on Better Law-Making”, Committee on Constitutional Affairs (Aug. 14, 2003), at 13/17.

⁶⁵² “Self-regulation is defined as the possibility for economic operators, the social partners, non-governmental organizations or associations to adopt amongst themselves and for themselves common guidelines at the European level (codes of practice, sectoral agreements, etc.). *As a general rule, this type of voluntary initiative does not imply that the Institutions have adopted any particular stance, in particular where such initiatives are undertaken in areas which are not covered by the Treaties, or in which the EU has not hitherto legislated.* As one of its responsibilities, the Commission will scrutinize self-regulation practices in order to verify that they comply with the provisions of the Treaty. The Commission will notify Parliament and the Council of the self-regulation practices which it regards...as contributing to the attainment of the Treaty objectives and as being compatible with the Treaty provisions... (emphasis added).” See Provisional 2003/2131 (ACI), at p. 14/17. However, it does imply that Institutions can support these initiatives if they are in areas covered by EU legislation or Treaties.

⁶⁵³ *Id.* “The European Union’s policies and legislation are getting increasingly complex. The reluctance of Council and European Parliament to leave more room for policy execution to the Commission means that legislation often includes an unnecessary level of detail...The level of detail...also means that adapting rules to technical or market changes can be complex and time-consuming...A slow legislative process is compounded by slow implementation...Scientific and other experts play an increasingly significant role in preparing and monitoring decisions [,] [f]rom *human and animal health to social legislation...Recent food crises* have...undermined public confidence in expert-based policy-making. Public perceptions are not helped by the opacity of the Union’s system of expert committees or the lack of information about how they work...*These issues become more acute whenever the Union is required to apply the precautionary principle and play its role in risk assessment and risk management...[Networking at [the] European and even global level show[s] clear benefits...It is essential that resources be put together and work better in the common interest of EU citizens. Such structured and open networks should form a scientific reference system to support EU policy-making...The European Union...must pay constant attention to improving the quality, effectiveness and simplicity of regulatory acts. Effective decision-making also requires the combination of different policy instruments (various forms of legislation, programs, guidelines, use of structural funding, etc.) to meet Treaty objectives...[I]nvestment in good consultation ‘upstream’ may produce better legislation which is adopted more rapidly and easier to apply and enforce...[L]egislation is often only part of a broader solution combining formal rules with other non-binding tools such as recommendations, guidelines, or even self-regulation within a commonly agreed framework” (emphasis added). COM (2001) 428 final, “European Governance – A White Paper” (July 25, 2001), at 18-20.*

⁶⁵⁴ “ISO TC 207 [already publishes] international standards on environmental management systems, eco-labeling, life-cycle assessment, environmental auditing, and many others. The best known of these standards is the ISO 14001 Environmental Management System standard to which over 30,000 companies have obtained certification.” See “The Future of International Management Standards – Standards and Trade - Standards Policy”, International Institute for Sustainable Development, at: (<http://www.iisd.org/standards/policy.asp>).

⁶⁵⁵ The Precautionary Principle is articulated within Principle 7 of the Nine Global Compact Principles. Business enterprises must adopt these principles in some way within the sphere of their daily business activities in order to maintain their participation in the Global Compact. “Principle 7: support a ‘precautionary approach’ to environmental challenges” (emphasis added). See (http://www.wfsg.org/wfsg/new_site/meetings/Meet_sum02/UN_Global_compact_progress/thenine.htm); (http://www.wfsg.org/wfsg/new_site/meetings/Meet_sum02/UN_Global_compact_progress/prin7.htm).

⁶⁵⁶ “The United Nations Commission on Sustainable Development (CSD) has become the central forum for a plethora of specialized agencies seeking answers to questions of balance and harmonization. Moreover, from their joint endeavor has come a veritable proliferation of international environmental conventions, autonomous governing bodies and secretariats...UNEP, however, is the environmental voice of the United Nations and the principal source of information for the UN Commission on Sustainable Development (CSD). The Nairobi Declaration adopted by the UNEP Governing Council in 1997 called for strengthening

UNEP as the world community's coordination center on environmental issues. Only UNEP has the worldwide capacity to monitor and assess environmental matters through its GEMS and GRID programs. So, too, UNEP is the central agency concerned with the development of policy and law on environmental questions. It is also the bridge between science and policy making, and maintains an active association with national environmental organizations [including NGOs] and agencies. UNEP therefore has been at the center of negotiations that have resulted in the drafting of important treaties that are related to the environment and sustainable development." See Lawrence Airing, Robert Riggs and Jack Plano, *The United Nations – International Organization and World Politics*, Third Edition, Harcourt College Publishers (© 2000), at 353-354.

⁶⁵⁷ See Palitha T.B. Kohona, "Implementing Global Environmental Standards: The Emerging Role of the Non-State Sector", *EIL Journal* (Nov. 2004).

⁶⁵⁸ *The New York Times* recently reported on the ability of environmental groups to coerce large companies to alter their purchasing behavior. "Instead of seeking environmental change through government legislation or the courts... environmental activists... get specific corporations through boycotts and protests. They then persuade those companies to pressure their suppliers and business partners to change their practices, through creating a 'green' domino effect through an industry... For retailers, working with green groups can be a fairly inexpensive way to ingratiate themselves with customers and rid themselves of negative publicity." See Jim Carlton, "One Targeted by Protesters, Home Depot Plays Green Role", *N.Y. TIMES*, Aug. 6, 2004, at A1.

⁶⁵⁹ "Multiple players, especially in developed countries, are receiving increasing pressures – from regulatory and non-regulatory agencies – to care about the sustainability of their production process. In addition to producers... raw material suppliers and retailers have now been targeted also. B&Q, for example, one of the largest British retailers, reacted positively to these pressures by launching a comprehensive Environmental Policy. B&Q now requires suppliers to provide information about their environmental policy, supply auditing information, and allow B&Q to disqualify any suppliers which do not show improvement in their environmental performance. See Raúl O'Ryan and Gabriel Fierro, "International Trade and Sustainability of the Chilean Forestry Sector (2000), at 7.

⁶⁶⁰ According to the United Nations Conference on Trade and Development (UNCTAD), voluntary informal (non-government) environmental requirements (e.g., retail buying groups and supply chain management) play as important a role in product standardization as mandatory environmental requirements. "Voluntary requirements include, for example, buyers' requirements, including *supply-chain management by transnational corporations (TNCs) and supermarket chains, as well as actions by non-governmental organizations (NGOs)* (emphasis added). See Ulrich Hoffmann, *Environmental/Health Requirements, Market Access and Export Competitiveness – What is the Problem for Developing Countries and what can be the Answers?*, Sub-Regional Workshop on Environmental requirements, Market access/entry and Export Competitiveness of Electrical and Electronic Products from China, Philippines and Thailand, *Project on Building Capacity for Improved Policy Making and Negotiation on Key Trade and Environment Issues*, (Feb. 18-24, 2004), at 4, at: http://r0.unctad.org/trade_env/test1/meetings/manila/Paper%20on%20market%20access.pdf.

⁶⁶¹ See Michael Adams and Jeiro Castano, "World Timber Supply and Demand Scenario, Government Interventions, Issues and Problems" (2000) at: <http://www.fao.org/docrep/005/ac781E03.htm>.

⁶⁶² See Raúl O'Ryan and Gabriel Fierro, "International Trade and Sustainability of the Chilean Forestry Sector (2000), at 7.

⁶⁶³ See Jim Carlton, "Once Targeted by Protesters, Home Depot Plays Green Role", *NY TIMES*, *supra*, at A1.

⁶⁶⁴ See Jim Carlton, "J.P. Morgan Adopts 'Green' Lending Policies", *Wall Street Journal* (April 25, 2005), at p. B1.

⁶⁶⁵ "Home Depot buys almost 10% of Chile's annual wood exports. Most of the lumber comes from tree farms of nonnative pine and eucalyptus that the Chilean timber industry planted on denuded land -- including places where large swaths of ecologically diverse native forest had been clear-cut or burned down. In the past few years, Home Depot has begun lobbying governments and loggers to stop overcutting forests from Asia and Africa to the Americas. In Chile, Home Depot recently brokered a pact to deter landowners from converting native forests into the very kind of tree farms the retailer depends on. Home Depot is part of a growing rapprochement between American corporations and the global activists who traditionally clashed with them. From 1997 to 1999, environmental groups organized protests against the company, charging it was failing to ensure that its wood didn't come from endangered forests. Activists picketed hundreds of Home Depot stores, hung banners at its corporate headquarters in Atlanta and demonstrated at shareholder meetings. Home Depot was afraid the protests might lead to a consumer backlash and sliding sales. So the company agreed to stop using products from endangered forests... [and] to sever logging contracts with any

supplier whose practices harm endangered forests or otherwise hurt the environment.” See Jim Carlton, “One Targeted by Protestors, Home Depot Plays Green Role”, NY TIMES, *supra*.

⁶⁶⁶ *Id.*, at A6.

⁶⁶⁷ See “New York Times Ad Exposes Victoria’s Secret for Destroying Endangered Forests”, ForestEthics Press Release, Jan. 21, 2005, at: (<http://www.forestethics.org/html/eng/1060.shtml>).

⁶⁶⁸ *Id.*

⁶⁶⁹ See Peter Foster, “CSR’s Dirty Secret”, NATIONAL POST, Jan. 26, 2005, at: (http://www.csrwatch.com/csrs_dirty_secret.htm). “Companies like Weldwood and International Paper are directly responsible for this destruction...of Canada’s Boreal...[which] contribut[es] to the demise of threatened caribou herds...[and threatens the]...critical nesting grounds for over three billion North American birds.”

⁶⁷⁰ See Amy Merrick, “Gap Offers Unusual Look at Factory Conditions – Fighting ‘Sweatshop’ Tag, Retailer Details Problems Among Thousands of Plants”, WALL ST. J., May 12, 2004, at A1.

⁶⁷¹ “Wal-mart Stores, Inc...along with its celebrity endorser – Kathie Lee Gifford – fell under heavy criticism in the mid-1990’s over working conditions at foreign plants that made its clothing.” *Id.*

⁶⁷² A UN Global Compact Policy Dialogue entitled, “Supply Chain Management and Partnerships” took place in New York at the United Nations during June 12-13, 2003. Representatives from a number of global retailers/suppliers were listed as speakers at this forum, including Hudson Bay Company (Canada), Li & Fung USA (China parent), ALFESA (Paraguay), Wet Seal (USA), Disney Stores (USA), BMW Group (Germany) and Novartis (Switzerland).

⁶⁷³ See Thomas H. Clarke, Jr. and Peter Clarke, “Op-Ed: Will Nike v. Kasky Ignite Corporate Social Responsibility Trade Wars Between the U.S. and European Union?” (Mar. 3, 2003), at: (http://www.srimedia.com/artman/publish/printer_419.shtml).

⁶⁷⁴ A representative of Li & Fung USA was listed as a speaker at last year’s UN Global Compact Policy Dialogue.

⁶⁷⁵ The Chairman of the Swiss Business Federation, Zurich conveyed this message during a 2002 Global Compact conference. “The Swiss Business Federation often is perceived as representing the world-wide known multinational enterprises (MNEs)...However, Swiss small and medium-sized enterprises (SMEs) form by far the larger part of our associated members, in fact as much as 98% of all companies...I am...a co-owner and manager of a medium-sized company in the textile sector, operating not only out of our home based in Switzerland, but also out of foreign countries, in the developing as well as in the industrialized world. Similar to many other companies we and our customers rely on materials and services coming from these companies or going there. And equal to others, we experience the globalization of our activities to be increasingly complex to master. To find, train and minor qualified management and staff, to get quality right and make companies profitable is a difficult job on its own, and most certainly enjoys in the beginning of any undertaking abroad priority in relation to health, safety and labor standards. However...*the principles of the Global Compact Initiative will sooner or later catch up with all other managerial tasks...Companies and their federations have good reasons to actively care about this challenge...because the adherence to Corporate Social Responsibility is more often asked for as a condition of business within a supply chain. I am noticing in my business that we are confronted with such requests from our large multinational customers based in an increasing number of cases, making Social Responsibility standards global by business pressure.* Power is shifting from within growing networks, and as a result shifts responsibilities” (emphasis added). See Ueli Forster, “Why Should SMEs Take the Global Compact Seriously”, The United Nations Global Compact and Swiss Business, Geneva (Oct. 29, 2002).

⁶⁷⁶ “After several years of lobbying by the Rainforest Action Network, Citigroup plans to announce on Thursday that *it will no longer accept financing deals involving certain projects and corporations criticized by the group on environmental grounds...The announcement comes after a campaign by the Rainforest Action Network, which has labeled Citigroup the ‘most destructive bank in the world’*” (emphasis added). See “Environmentalists Get Citigroup Pledge”, N.Y. TIMES, Jan. 22, 2004 at: (<http://www.ran.org/news/newsitem.php?id=887&area=home>).

⁶⁷⁷ “On June 4, 2003, ten leading banks from seven [European] countries announced the adoption of the ‘Equator Principles’...[They] are a voluntary set of guidelines developed by banks for managing social and environmental issues related to the financing of development projects. The banks apply the principles globally to project financings in all industry sectors, including mining, oil and gas, and forestry.” See “IFC: The Equator Principles”, at: (<http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0..contentMDK:20193065~menuPK:34480~pagePK:36694~piPK:116742~theSitePK:4607.00.html>).

⁶⁷⁸ “As of October 27, 2003, banks which have adopted the Equator Principles include ABN AMRO Bank NV, Barclays, Credit Lyonnais, Credit Suisse Group, Dexla Group, Dresdner Bank, HSBC Group, HVB

Group, ING Group, MCC, Rabobank Group, Royal Bank of Canada, Royal Bank of Scotland, WestLB AG, Westpac Banking Corporation and Standard Chartered.” *Id.*

⁶⁷⁹ See “Welcoming the Act But Holding the Applause: The Equator Principles on Project Finance”, Friends of the Earth International, at: (<http://www.foei.org>).

⁶⁸⁰ “Banks that endorse the Equator Principles (EPs) commit to categorize projects based on their social and environmental sensitivity. For the most sensitive projects, banks would require corporate clients to prepare environmental assessments, do public consultation, and create mitigation plans. The banks would then require such mitigation as part of its loan agreement with the client.” *Id.*

⁶⁸¹ According to the Wall Street Journal, “Earlier this year [2005], Citigroup told environmentalists it had ordered a Malaysian company linked to excessive logging practices in Papua New Guinea to get certified by the Forest Stewardship Council, an international auditing group whose membership includes environmentalists.” See Jim Carlton, “J.P. Morgan Adopts ‘Green’ Lending Policies”, Wall Street Journal, *supra*.

⁶⁸² See “Welcoming the Act But Holding the Applause: The Equator Principles on Project Finance”, Press Release, Friends of the Earth International (1/22/04), at: (<http://www.foe.org/new/releases/104citi.html>).

⁶⁸³ See “RAN Moves Bank of America to Set New Industry Best Practices for Climate Change and Forest Policies”, Rainforest Action Network (May 17, 2004), at: (<http://forests.org>).

⁶⁸⁴ See “Bank of America Victory! Second Largest U.S. Bank Sets New Industry Standards on Environment”, Rainforest Action Network Global Finance Campaign (May 17, 2004), at: (http://www.ran.org/ran_campaigns/global_finance/bofa_victory). Apparently, that fact that Bank of America, as well, would have been subject to a lethal public disparagement campaign by RAN helped to induce its capitulation to these environmental extremists. “Bank of America brought an imminent public campaign to a dramatic close even before it was officially launched...” *Id.*

⁶⁸⁵ *Id.*

⁶⁸⁶ See “Welcoming the Act But Holding the Applause: The Equator Principles on Project Finance”, Friends of the Earth International, *supra*.

⁶⁸⁷ See “RAN Moves Bank of America to Set New Industry Best Practices for Climate Change and Forest Policies”, Rainforest Action Network.

⁶⁸⁸ Steven Milloy, “Turning Children Against Business”, N.Y. SUN, Jan. 27, 2005.

⁶⁸⁹ *Id.*

⁶⁹⁰ See Steven Milloy, “Decision Time for J.P. Morgan Chase’s CEO”, N.Y. SUN, Mar. 21, 2005. “Citigroup and Bank of America ceded control over their lending decisions to RAN in 2004 – following a similar poster assault near the home of Citigroup Chairman Sanford Weil.”

⁶⁹¹ *Id.*

⁶⁹² See Jim Carlton, “J.P. Morgan Adopts ‘Green’ Lending Policies”, Wall Street Journal, *supra*. “J.P. Morgan’s new policy includes a pledge to set up one of the largest “No Go Zones,” or sensitive regions *where it won’t finance commercial logging or underwrite projects that pose an environmental threat. It plans to require borrowers in the wood-products industry to make sure their suppliers are certified by an independent auditing group as having procured wood out of non-threatened forests.* The bank is also pledging to reduce to \$10 million from \$50 million the threshold of total capital cost on environmentally-sensitive projects by which it will apply an international standard called the “Equator Principles,” which require more stringent environmental review for financing or other work. About 30 banks around the world have adopted those principles, which are based on policies of the World Bank and its private-sector arm, the International Finance Corp” (emphasis added). *Id.*

⁶⁹³ J.P. Morgan “[b]orrowers will be forced to disclose emissions of greenhouse gases - a practice likely to benefit only trial lawyers eager to sue businesses based on allegations that their greenhouse gas emissions contributed to global warming, which the lawyers hope to link to property damage from natural disasters such as hurricanes, tornadoes, and other severe weather events. Borrowers will also be pressured to include on their balance sheets liabilities for global warming - essentially imaginary liabilities that will compel borrowers to reserve monies for paying off trial lawyers, Green activists, and their allies in the property and casualty insurance industry.” See Steve Milloy, “JP Morgan Becomes Tool of Green Activists”, New York Sun (May 2, 2005).

⁶⁹⁴ “Though Citigroup and Bank of America were first to succumb to pressure from the Rainforest Action Network back in 2004, neither of those corporate capitulators went so far as to agree to lobby the government on the ever-dubious global warming. So in the competition among big banks to harm our economy by allowing the Greens to set national energy policy, JP Morgan Chase indeed leads this race to the bottom.” *Id.*

⁶⁹⁵ See Jim Carlton, “J.P. Morgan Adopts ‘Green’ Lending Policies”, Wall Street Journal, *supra*.

⁶⁹⁶ *Id.*

⁶⁹⁷ *Id.*

⁶⁹⁸ The mission of the Global Environmental Management Initiative (GEMI) is to support business helping business improve environment, health, and safety (EHS) performance, shareholder value, and corporate citizenship... GEMI also promotes a worldwide business ethic for environmental, health and safety management and sustainable development through example and leadership” See “Clear Advantage: Building Shareholder Value”, GEMI (Feb. 2004), at pp. I and II, at: (<http://www.gemi.org/GEMI%20Clear%20Advantage.pdf>).

⁶⁹⁹ See “Forging New Links: Enhancing Supply Chain Value Through Environmental Excellence” GEMI (June 2004), at: (<http://www.gemi.org/GEMI-ForgingNewLinks-June04.PDF>).

⁷⁰⁰ The Executive Summary of this report provides that, “[T]here is a growing need for effective EHS capabilities in all supply chain business processes. The emergence of globalization, outsourcing, and corporate social responsibility, along with regulatory changes and security concerns, has made EHS excellence a key success factor. Moreover, EHS issues can no longer be addressed in a reactive fashion. *Manufacturers are increasingly expected to take responsibility for the disposal of products and packaging at the end of their useful life, so that designing for reverse logistics has become a strategic approach for converting wastes into assets and thus generating shareholder value...* This report provides a comprehensive review of the opportunities for EHS to create business value in the supply chain across a variety of industries” (emphasis added). *Id.*

⁷⁰¹ “The emergence of extended producer responsibility and corporate social responsibility are part of a broader phenomenon. Many global corporations have made a commitment to *sustainable development*, often defined as ‘meeting the needs of the present without compromising the ability of future generations to meet their own needs.’ In practice sustainability involves: supporting employee rights and quality of life; Promoting community and societal well being; Upholding business ethics and transparency; Building capacity for economic development; Minimizing adverse environmental impacts; Protecting and conserving natural resources” (emphasis in original). *Id.*, at p. 3.

⁷⁰² “...EHS professionals [can] contribute to cost reduction through regulatory compliance, risk mitigation, and improved efficiency...Improving brand differentiation and customer loyalty by offering unique capabilities to address EHS-related requirements and expectations...*Gaining stakeholder approval by reducing the supply chain environmental footprint...Shareholder value creation is the ultimate goal of SCM...*” (emphasis added). *Id.*, at p. 5. See, also, “New Paths to Business Value – Strategic Sourcing – Environment, Health and Safety”, GEMI (March 2001), at p. 8, at: (<http://www.gemi.org/newpath.pdf>).

⁷⁰³ *Id.*, at p. 4.

⁷⁰⁴ See, e.g., Klaus M. Leisinger, “Pharmaceutical Innovation and Social Responsibilities”, for the Novartis Foundation for Sustainable Development, presented to the International Intellectual Property Institute/ Georgetown University (Oct. 7, 2003).

⁷⁰⁵ See “The Materiality of Social, Environmental and Corporate Governance Issues to Equity Pricing – 11 Sector Studies by Brokerage House Analysts at the Request of the UNEP Finance Initiative Asset Management Working Group [AMWG]”, UNEP Finance Initiative (June 2004), at pp. 4-5.

⁷⁰⁶ American companies should pay particular interest to the Generation Investment Management Fund recently established by former Vice President Al Gore and David Blood -- previously chief executive at Goldman Sachs fund arm. “London-based Generation Investment Management has been set up to tap growing demand for an investment style which can generate returns by blending traditional equity research with a focus on more intangible non-financial factors such as social and environmental responsibility and corporate governance... Climate change is rising rapidly up investors' agendas...Gore said...[that] it is impossible to analyse auto company stocks properly, for example, without taking the issue of vehicle emission standards into account, particularly for greenhouse gases such as carbon dioxide. ‘The carbon intensity of profits is an approach that needs to be adopted,’ he said, referring to the practice of measuring how much carbon is used in producing energy.” See Tom Burroughes, “Al Gore Starts Sustainable Growth Firm”, Reuters (Nov. 8, 2004), at: (<http://www.planetark.com/dailynewsstory.cfm/newsid/28075/story.htm>).

⁷⁰⁷ “We urge governments to: [1] Recognize that in general, current definitions of trustee fiduciary duty, financial materiality and corporate disclosure requirements do not incorporate or ensure the integration of environmental, social and corporate governance issues into fundamental company analysis [and] [2] Ensure that the assets of their public employee pension funds are invested in a manner that reflects the strong links between social, environmental and financial performance... We therefore call on regulatory bodies to: [1] *Update their regulations of public and private trustee fiduciary duty and of financial materiality to include consideration of material environmental, social and corporate governance issues* [and] [2] *Update financial disclosure regulations for companies and stock exchanges to require specific disclosure of environmental, social and corporate governance criteria...* Starting in 2004, our group is planning to begin tracking global

integration of environmental, social and corporate governance criteria into the work of investors, asset managers, and capital markets on an annual basis... Beginning in July 2005 the AMWG will seek to begin tracking global uptake of the recommendations of the UN Global Compact report on best practice in financial analysis and of the UNEP FI study.” “The Materiality of Social, Environmental and Corporate Governance Issues to Equity Pricing – 11 Sector Studies by Brokerage House Analysts at the Request of the UNEP Finance Initiative Asset Management Working Group [AMWG]”, *supra*, at pp. 5 and 11.

⁷⁰⁸ See “Clear Advantage: Building Shareholder Value”, GEMI (Feb. 2004);

⁷⁰⁹ *Id.*, at p. 1.

⁷¹⁰ *Id.*

⁷¹¹ *Id.*, at p. 2, *citing* Clark Eustace, “The Intangible Economy: Impact and Policy Issues”, Report of the High Level Expert Group on the Intangible Economy, Enterprise Directorate-General (Brussels Oct. 2000), at pp. 6-7. “With the arrival of the new information technologies, the structure of enterprises have changed dramatically, shifting the focus of value creation from tangible-based activities to intangible-based value creation. The value of intangible assets has therefore constantly increased in the last two decades from an average of 40% of total market value of business corporations at the beginning of the 1980’s to over 80% at the end of the 20th century. In knowledge intensive industries, like in the software business, a corporation’s book value is often lower than 10% of its market value, of which the largest part are constituted by intangible assets...” See Juergen Daum, “The New FASB Rules for Reporting on Intangible Assets – The U.S. versus the European Way”, The New Economy Analyst Report (Nov. 10, 2001), at: (http://www.juergendaum.com/news/11_10_2001.htm).

⁷¹² See Tony Hadjiloucas and Richard Winter, “Reporting the Value of Acquired Intangible Assets”, at: (http://www.buildingipvalue.com/05_SF/364_368.htm).

⁷¹³ See “Clear Advantage: Building Shareholder Value”, GEMI, at pp. 6-7, *citing* Kurt Ramin, “The Transparent Enterprise: The Value of Intangibles”, presentation to European Commission, Conference, Autonomous University of Madrid, (Nov. 2002); Jurgen Daum, “Intangible Assets and Value Creation”, (©Wiley & Sons, New York, 2003).

⁷¹⁴ See “APB No. 17 – Intangibles Assets” (Aug. 1970) at:

(http://www.pwccomperio.com/CONTENTS/ENGLISH/EXTERNAL/US/FASB_OP/APB17.HTM).

⁷¹⁵ See “Summary of Statement No. 142 – Goodwill and Other Intangible Assets (Issued 6/01)” at: (<http://www.fasb.org/st/summary/stsum142.shtml>); “FAS 141: Business Combinations (Issued 6/01)”, at: (http://www.pwccomperio.com/CONTENTS/ENGLISH/EXTERNAL/US/FASB_OP/FAS141.HTM). In reality, the previous choice of employing one of two approaches to account for business combinations (the ‘pooling’ vs. the ‘purchase’ method) provided certain companies with a competitive advantage. It “*affected competition in markets for mergers and acquisitions...* While the purchase method recognizes *all* intangible assets acquired in a business combination (either separately or as goodwill), *only those intangible assets previously recorded by the acquired entity are recognized when the pooling method is used...* This Statement requires that all business combinations be accounted for by a single method—the purchase method. [It]...requires that [intangible assets] be recognized as assets apart from goodwill if they meet one of two criteria—the contractual-legal criterion or the separability criterion. To assist in identifying acquired intangible assets, this Statement also provides an illustrative list of intangible assets that meet either of those criteria... [T]his Statement requires disclosure of the primary reasons for a business combination and *the allocation of the purchase price paid to the assets acquired and liabilities assumed by major balance sheet caption. When the amounts of goodwill and intangible assets acquired are significant in relation to the purchase price paid, disclosure of other information about those assets is required, such as the amount of goodwill by reportable segment and the amount of the purchase price assigned to each major intangible asset class*” (emphasis added). *Id.*

⁷¹⁶ See “IAFS Plus – Standards: IFRS 3 Business Combinations”, Deloitte (2004), at:

(<http://www.iasplus.com/standard/ifrs03.htm>); See Tony Hadjiloucas and Richard Winter, “Reporting the Value of Acquired Intangible Assets”, PriceWaterhouseCoopers, at: (http://www.buildingipvalue.com/05_SF/364_368.htm). In reality,

⁷¹⁷ *Id.* “The newly introduced IFRS 3 is a very significant extension of [the] shift to enhanced transparency. Its impact should not be underestimated. All EU companies on listed exchanges will be required to report under IFRS from 2005 and, at the same time, many other countries including, for example, Australia, are also adopting these standards. IFRS is therefore becoming the new accepted language for financial reporting. There are also significant pressures to...establish one set of global standards.” *Id.*

⁷¹⁸ *Id.*, at pars. 26 - 28.

⁷¹⁹ “The fair value of an asset (or liability) is *the amount at which that asset (or liability) could be bought (or incurred) or sold (or settled) in a current transaction between willing parties*, that is, other than in a forced or liquidation sale. Thus, the fair value of a reporting unit refers to the amount at which the unit as a whole

could be bought or sold in a current transaction between willing parties. *Quoted market prices in active markets are the best evidence of fair value* and shall be used as the basis for the measurement, if available... If quoted market prices are not available, the *estimate of fair value shall be based on the best information available...*” (emphasis added). See “FAS 142: Goodwill and Other Intangible Assets”, at pars. 23 and 24, at: (http://www.pwccomperio.com/CONTENTS/ENGLISH/EXTERNAL/US/FASB_OP/FAS142.HTM).

⁷²⁰ Previously, U.S. GAAP provided for the accounting of unidentifiable intangibles, such as goodwill, whether acquired or internally developed, only on a historical cost basis – their market value was not recorded unless or until the business was sold, merged or otherwise disposed of.

⁷²¹ “Goodwill shall be tested for impairment at a level of reporting referred to as a reporting unit... Impairment is the condition that exists when the carrying amount of goodwill exceeds its implied fair value... If the carrying amount of reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss shall be recognized in an amount equal to that excess. The loss recognized cannot exceed the carrying amount of goodwill. *After a goodwill impairment loss is recognized, the adjusted carrying amount of goodwill shall be its new accounting basis*” (emphasis added pars. 18-20, at:

(http://www.pwccomperio.com/CONTENTS/ENGLISH/EXTERNAL/US/FASB_OP/FAS142.HTM#fas142%20par.%207).

⁷²² “[T]his [FASB 142] statement... carries forward without reconsideration the provisions in [APB] Opinion 17 related to *internally developed intangible assets*. The Board did not reconsider those provisions because they were outside the scope of its project on business combinations and acquired intangible assets.” See “FAS 142: Goodwill and Other Intangible Assets”, at:

(http://www.pwccomperio.com/CONTENTS/ENGLISH/EXTERNAL/US/FASB_OP/FAS142.HTM#fas142%20paragraph%20d1).

⁷²³ See “Summary of Statement No. 142 – Goodwill and Other Intangible Assets (Issued 6/01), *supra*.”

⁷²⁴ Granted, EHS performance might comprise a portion of overall brand or company reputation and value, and consumer or investor reaction to a company’s negative EHS performance may indirectly impact that reputation or value. Additionally, a reduced reputation may indirectly result in lower product sales and/or stock value. However, there exists no accounting convention, GAAP or otherwise, that would allow EHS performance itself (positive or negative) without regard to regulatory liability, to be ascertained and valued as a separate asset. Even the recording of a contra-asset such as a reserve to reflect a provision made for anticipated rather than hypothetical or uncertain regulatory risk or related costs would not suffice. Reserves are often utilized to reflect financial provisions made for expected bad debts, litigation expenses or insurance losses, Reserves continue to be reflected on a company’s books as a ‘covering’ asset, and an equal amount is reflected as an offsetting contingent liability, until the company actually incurs all or a portion of the liability. Once incurred the liability’s carrying value is reduced and it is currently expensed or amortized, while the reserve (asset) is written down commensurately.

⁷²⁵ See “Clear Advantage: Building Shareholder Value”, GEMI, at pp. 6-7.

⁷²⁶ *Id.*

⁷²⁷ “*The institutions endorsing this report are convinced that in a more globalised, interconnected and competitive world the way that environmental, social and corporate governance issues are managed is part of companies’ overall management quality needed to compete successfully*” (emphasis added). See “Who Cares Wins – Connecting Financial Markets to a Changing World”, Executive Summary, UN Global Compact Office (June 2004), at i.

⁷²⁸ See Tony Tinker, *Paper Prophets – A Social Critique of Accounting* (Praeger Publ. © 1985) at p. xx; See also, Rob Gray and Jan Bebbington, “Environmental Accounting, Managerialism and Sustainability – Is the Planet Safe in the Hands of Business and Accounting?” *Advances in Environmental Accounting and Management* (1998), Abstract at:

(<http://www.gla.ac.uk/departments/accounting/csear/studentresources/index.html>). “*This paper, works from the premises that (a) accounting (and accounting research) typically adopts a set of implicit assumptions about the primacy and desirability of the conventional business agenda - and is thus ‘managerialist’ in focus; and (b) that the conventional business agenda and environmental protection - and, especially, the pursuit of sustainability - are in fundamental conflict. If this is so then accounting is contributing to environmental degradation - not environmental protection.* The paper seeks to provide a review of the current state of the art in environmental accounting research through this ‘managerialist’ lens and then goes on to illustrate the essence of the problem through the reporting of a new analysis of data from an international study of accounting, sustainability and transnational corporations” (emphasis added). *Id.*

⁷²⁹ See *Culture and Social Theory*, Chap. 4, “Accounting for the Environment”, edited by Sun-Ki Chai and Brendon Swedlow, collected writings by Aaron Wildavsky (New Brunswick, NJ: Transaction Publishers, 1998).

⁷³⁰ See, e.g.; Richard L. Revesz, “Environmental Regulation, Cost-Benefit Analysis and the Discounting of Human Lives”, 99 CLMLR 941 (99 Colum. L. Rev. 941) (1999); Matthew D. Adler Against ‘Individual Risk’: A Sympathetic Critique of Risk Assessment”, [U of Penn. Inst for Law & Econ Research Paper 04-01: and U of Penn. Law School, Public Law Working Paper 49](#) (Jan. 2004), at: (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=487123);

Matthew D. Adler, “Fear Assessment: Cost-Benefit Analysis and the Pricing of Fear and Anxiety”, [U of Penn., Inst for Law & Econ Research Paper 03-28: U Penn. Law School, Public Law Working Paper 44; AEI-Brookings Joint Ctr Working Paper No. 03-12](#) (Nov. 2003), at: (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=466720); Matthew D. Adler, “Risk, Death and Harm: The Normative Foundations of Risk Regulation”, U of Penn, Inst for Law & Econ Research Paper 03-15; and U of Penn. Law School, Public Law Working Paper 29, 87 [Minnesota Law Review 1293, \(2003\)](#), at: (http://papers.ssrn.com/sol3/papers.cfm?abstract_id=410881).

⁷³¹ See, *Culture and Social Theory*, Chap. 4, “Accounting for the Environment”, edited by Sun-Ki Chai and Brendon Swedlow, collected writings by Aaron Wildavsky, *supra*, at pp. 85-88.

⁷³² *Id.*, at pp. 106-108.

⁷³³ See Peter Goldsmith, Hamish Gow and Nesve Turan, “Is it Safe? Post-Market Surveillance versus Ex-ante Signalling”, Department of Agricultural and Consumer Economics, University of Illinois at Urbana Champaign (2002), at 5-6, at: (<http://www.ifama.org/conferences/2003Conference/papers/goldsmith.pdf>)

⁷³⁴ *Id.*, at 6-7.

⁷³⁵ *Id.*, at 7.

⁷³⁶ See “Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters” (June 25, 1998). The objective of this regional convention is to provide and protect “the right of every person of present and future generations to live in an environment adequate to his or her health and well-being [by] guarantee[ing] [them] rights of access to information, public participation in decision-making, and access to justice in environmental matters...” See Art. 1. The convention affirms “the need to protect, preserve and improve the state of the environment and to ensure sustainable and environmentally sound development”. See Preamble, Affirmation Clause.

⁷³⁷ *Id.*, at Art. 6.1 (a) and (b). The industries targeted include the energy sector, the metals production and processing industries, the mineral industry, the chemical production, processing and formulation industries, the textile and leather industries, the waste management industry, the rail, air and waterway transportation industries and the biotechnology and pharmaceutical industries. Activities specifically targeted include, waste-water treatment plants, pulp and paper production, groundwater abstraction and recharge schemes, petroleum and natural gas extraction, dams and other installations, poultry and pig farming, quarries and opencast mining, overhead electrical power line construction, petroleum, petrochemical storage, slaughterhouses, food treatment and processing, milk treatment and processing. See Annex I. In addition, it specifically recognizes “the concern of the public about the deliberate release of genetically modified organisms [GMOs] into the environment and the need for increased transparency and greater public participation in decision-making in this field.”

⁷³⁸ See Art. 4.4 (d), (e) and (h). “The aforementioned grounds for refusal *shall be interpreted in a restrictive way, taking into account the public interest served by disclosure* and taking into account whether the information requested relates to emissions into the environment” (emphasis added). Art. 4.4(h).

⁷³⁹ See Annex I, par. 20.

⁷⁴⁰ For example, the Preamble states, “Recognizing further the importance of the respective roles of individual citizens, *non-governmental organizations*... can play in environmental protection” (emphasis added). Article 2.5 provides that, “The public concerned” means the public affected or likely to be affected by, or having an interest in, the environmental decision-making; for purposes of this definition, *non-governmental organizations promoting environmental protection and meeting any requirements under national law* shall be deemed to have an interest” (emphasis added). Article 3 provides that “Each Party shall provide for appropriate recognition of and support to associations, organizations or groups promoting environmental protection, and ensure that its national legal system is consistent with this obligation” (emphasis added).

⁷⁴¹ The convention’s Preamble expressly refers to Principle 1 of the Stockholm Declaration on the Human Environment, Principle 10 of the Rio Declaration on Environment and Development, General Assembly Resolutions 37/7 (10/28/82) and 45/94 (12/14/90), and to the United Nations Economic Commission for Europe (UNECE).

⁷⁴² See “Comments of Rod Hunter, Part Four: Litigators React, Green Paper and the Future of Product Liability Litigation in Europe”, at 14.

⁷⁴³ See Lawrence A. Kogan, “‘Enlightened’ Environmentalism or Disguised Protectionism?”, *supra* note 46.

⁷⁴⁴ CSR generally refers to business decision-making linked to ethical values, compliance with legal requirements and respect for people, communities and the environment. It is usually defined as operating a

business in a manner that meets or exceeds the ethical, legal, commercial and public expectations that society has of business. See “Introduction to Corporate Social Responsibility – White Paper”, Business for Social Responsibility, at 1, at:

(<http://www.bsr.org/BSRResources/WhitePaperDetail.cfm?DocumentID=138>).

⁷⁴⁵ The Global Compact (“GC”) was launched on June 26, 2000. In the broadest sense, the principles underlying the GC reveal an attempt by the UN to reestablish at the global level the once strong bonds that tied companies to communities, which have since frayed with the acceleration of globalization. In other words, the GC endeavors to encourage the formation of a new global ‘social compact’ amenable to evolving global governance institutions. According to Harvard University scholar John Ruggie, architect of the GC, “The backlash against globalization has grown in direct proportion to the divergence between global markets and national communities. The backlash against globalization is driven by three of its attributes. First, globalization’s benefits are distributed highly unequally within and among countries; large parts of the developing world have been left behind entirely. Second, it is triggered by an imbalance in global rulemaking. For example, while rules favoring global market expansion have been more robust and enforceable in the last decade or two, other rules intended to promote equally valid social objectives such as poverty eradication, labor standards, human rights or environmental quality, have lagged behind, and in some instances have actually become weaker. Third, a global identity crisis is emerging. It is questionable who is in control of the unpredictable forces that can bring on economic instability and social dislocation, sometimes at lightning speed.” See John Gerard Ruggie, “The Theory and Practice of Learning Networks: Corporate Social Responsibility and the Global Compact”, at:

(<http://65.214.34.30/un/gc/unweb.nsf/content/Jruggie.htm>).

⁷⁴⁶ The EU Commission and civil society criticize what they perceive as a significant ‘market failure’, namely, the lack of morality in free markets. They advocate that governmental regulatory action, especially in this new era of globalization, is necessary to create that moral ethos for markets to function more fairly, rather than merely, more efficiently. The opposing views in this debate have been well articulated in a new book. See Rebecca M. Blank and William McGurn, *Is the Market Moral? – A Dialogue on Religion, Economics and Justice*, The Brookings Institution and Georgetown University © 2004. The book features a collection of essays on this subject prepared by economist Rebecca Blank, dean of the Gerald R. Ford School of Public Policy at the University of Michigan, and William McGurn, chief editorial writer and editorial board member of the *Wall Street Journal*.

⁷⁴⁷ This notion of sustainable development was effectively ‘mainstreamed’ at the United Nations Conference on Environment and Development (UNCED) convened in Rio de Janeiro in June 1992 (‘the Earth Summit’). UNCED produced the Rio Declaration on Environment and Development, a non-binding set of broad principles and a non-binding agreement called Agenda 21, which is essentially a global action plan to achieve sustainable development by implementation of those principles. Principle 15 of the Rio Declaration consists of the Precautionary Principle. Indeed, the United Nations recently issued a report on collective global threats that cited the need to achieve sustainable development to ensure global collective security within the FIRST of the report’s many sections identifying and discussing collective global threats. As the report reveals, however, the attainment of sustainable development and economic growth are two distinct goals. See “A More Secure World - Our Shared Responsibility – Report of the High-level Panel on Threats, Challenges and Change”, *supra*, at paragraphs 52-59.

⁷⁴⁸ The latest dire Malthusian prognostication was reported by the UK Guardian on March 30, 2005. “The human race is living beyond its means. A report backed by 1,360 scientists from 95 countries – some of them world leaders in their fields – today warns that almost two-thirds of the natural machinery that supports life on Earth is being degraded by human pressure. The study contains what its authors call ‘a stark warning’ for the entire world. The wetlands, forests, savannahs, estuaries, coastal fisheries, and other habitats that recycle air, water and nutrients for all living creatures are being irretrievably damaged. *In effect, one species is now a hazard to the other 10 million or so on the planet, and to itself.* ‘Human activity is putting such a strain on the natural functions of Earth that the ability of the planet’s ecosystems to sustain future generations can no longer be taken for granted’, it says... ‘In many cases, it is literally a matter of living on borrowed time’” (emphasis added). See Tim Radford, “Two-Thirds of World’s Resources ‘Used Up’”, UK Guardian (Mar. 30, 2005).

⁷⁴⁹ “The market for safety attributes of food products is not fully developed and information asymmetries and incentive problems pose systemic risks in the food sector where sub-optimal outcomes may occur. Some argue, with this market failure at hand, [that] *government intervention is justified in order to enhance social welfare*” (emphasis added). See Peter Goldsmith, Nesve Turan and Hamis Gow, “Governments and Firms: Incentives to Supply of Safe Food”, Paper presented at the 14th Annual World Food and Agribusiness Symposium (June 13-14, 2004), at 1, at:

<http://www.ifama.org/Conferences/2004Conference/Papers/Goldsmith1016.pdf>.

⁷⁵⁰ See Daniel Yergin and Joseph Stanislaw, *The Commanding Heights – The Battle for the World Economy*, Touchstone Publishers © 1998, 2002, at 334-335.

⁷⁵¹ See L. Bergkamp and J.C. Hanekamp, “The Draft REACH Regime: Costs and Benefits of Precautionary Chemical Regulation” (2003), at fn 16.

⁷⁵² See Peter Goldsmith, Nesve Turan and Hamis Gow, “Governments and Firms: Incentives to Supply of Safe Food”, at 19-21.

⁷⁵³ *Id.*, at 21-22. These authors argue that within the U.S. constitutional setting, “the judicial branch is to guard these fundamental rights and courts are assigned a massive amount of power to regulate crucial societal matters...[This poses regulators with the] particular challenge [of] establishing cause, effect, responsibility, and punishment under the U.S. regulatory regime. As a result, firms may take advantage of the U.S. constitutional setting to constrain the agency relationship with the government as the principal by means of using the legal system to thwart the efforts of regulators.” *Id.*, at 21.

⁷⁵⁴ *Id.*, at 333-334.

⁷⁵⁵ The EU is confident that it can manipulate global market behavior because of the large size of the EU internal market. The attractiveness of the EU market to non-EU industry exporters motivates them to design their products so as to satisfy EU regulations and standards in order to secure EU market access. This, in turn, enhances the EU’s ability to raise the level of regulatory stringency. According to Professor Vogel, “Foreign producers in nations with weaker domestic standards...are forced...to design products that meet those standards, since otherwise they will be denied access to its markets. This, in turn, encourages those producers to make the investments required to produce these new products as efficiently as possible. Moreover, having made these initial investments, they now have a stake in encouraging their home markets to strengthen the standards in part because their exports are already meeting them.” See, David Vogel, “Environmental Regulation and Economic Integration”, Prepared for a Workshop on Regulatory Competition and Economic Integration: Comparative Perspectives, Yale Center for Environmental Law and Policy (Oct. 1999), at pp. 10-11. The attractiveness of the EU as an export market for finished products and for components and inputs will continue, however, only as long as the regulations and standards governing access to the EU market continue to be workable. Once they become impracticable and impose excessive costs on non-EU industry relative to other jurisdictions, there is a real risk that they may trigger a ‘prisoner’s dilemma’ – i.e., non-EU industries will decide to export to other (non-EU) regions with lower regulatory and standards costs, thereby leaving EU industry, burdened by higher than average EU regulatory costs, at a global competitive disadvantage. According to Professor Vogel, it is this fear that motivates the EU to press other jurisdictions, including the U.S. (which if left to their own devices would not likely) to adopt more stringent precautionary principle-based standards. *Id.*, at fn 13, at pp. 23-25.

⁷⁵⁶ During a summit that took place in Lisbon, Portugal during 2000, EU leaders articulated a new vision that has come to be known as the ‘Lisbon Agenda’. In fulfilling that agenda, Europe was “to become the most dynamic and competitive knowledge-based economy in the world”. See, e.g., Gordon Brown, “Europe Must Meet the Challenge of Reform” Comment, FINANCIAL TIMES, Sept. 10, 2004, at 13; George Parker, “Kok Blasts ‘Failed Promises’ of EU Competitiveness”, FINANCIAL TIMES, Oct. 25, 2004, at 3; Thomas Sims, “EU Economic Push Falls Short – Report Recommends Urgent Action to Close Gap with U.S., Asia”, WALL ST. J., Nov. 2, 2004, at A20. Interestingly, European leaders have finally gotten around to the other part of the problem, namely, that Europeans are loath to give up a 35 hour work week, lavish employer-paid worker leave and unemployment benefits and an annual summer holiday that spans the month of August.

⁷⁵⁷ See Bertrand Benoit, “German R&D Continues to Shift Demand”, FINANCIAL TIMES, Feb. 1, 2005.

⁷⁵⁸ See Lawrence A. Kogan, “Exporting Europe’s Protectionism”, *The National Interest*, at 97-98.

⁷⁵⁹ See Peter F. Drucker, “Trading Places”, *The National Interest*, Spring 2005, at p. 101.

⁷⁶⁰ *Id.*, at pp. 105-106.

⁷⁶¹ See Lawrence A. Kogan, “Ducking the Truth About Europe’s GMO Policy”, INTERNATIONAL HERALD TRIBUNE (Nov. 26, 2004), at: (<http://www.iht.com/articles/2004/11/26/opinion/edkogan.html>).

⁷⁶² See Lawrence A. Kogan, “‘Enlightened’ Environmentalism or Disguised Protectionism”, *supra* note 46 at fns 4-6, pp. 7-8.

⁷⁶³ See Andrew Jordan and Timothy Riordan, “The Precautionary Principle in Contemporary Environmental Policy and Politics”, prepared for the Wingspread Conference on ‘Implementing the Precautionary Principle’, 23-25, Jan. 1998, Racine, Wisconsin, at 2-3, at: (<http://www.johnsonfdn.org/conferences/precautionary/jord.html>); Lawrence A. Kogan, “Exporting Europe’s Protectionism”, *supra*, note 491, at 97-98. “Existing [European] policies ensure that some production meets high environmental standards, for example, through the Directive on Integrated Pollution Prevention and Control (IPPC). Regulation has been complimented with market-based and voluntary instruments, such as environmental management systems, *eco-labeling*, and most recently, *the Community’s greenhouse gas emissions trading scheme*. *Integrated Product Policy (IPP)* strengthens the environmental

performance of products while *the Commission's proposal to reform chemicals legislation (REACH)* will improve the protection of the environment and public health and encourage innovation and safeguard competitiveness at the same time” (emphasis added). See COM (2004) 38 final, at 5-6. “Key actions include the launch of technology platforms with stakeholders in areas such as hydrogen and fuel cells, photovoltaics, and water supply and sanitation; establishing environmental performance targets for products and services; and making the most of funding schemes and public and private procurement policies...*The Commission will begin implementing this Action Plan immediately*” (emphasis added).

⁷⁶⁴ “The Commission specifically proposed *the promotion of the integration of environmental protection requirements in standardization activities in the Sixth Community Environment Action Program* adopted by the Council and the European Parliament in 2002” (emphasis added). See COM (2004) 130 final “Communication From the Commission to the Council, the European Parliament and the European Economic and Social Committee – Integration of Environmental Aspects into European Standardization.” Feb. 25, 2004, at p. 5. “The aim of this Communication is to promote awareness-raising activities and an exchange of expert knowledge and good practice, so that standards can contribute to a better environment and hence to sustainable development.” *Id.*, at 10. “Standards are tools for the dissemination of technical knowledge. Today, there are already many European standards that either directly deal with the environment or that take environmental aspects into account. Their use should be encouraged.” *Id.*, at 8.

⁷⁶⁵ “[T]he multilateral trading system has a key role to play in the achievement of global sustainable development. The Doha Development Agenda will provide an opportunity to...eliminat[e]...tariff and non-tariff barriers to environmental goods and services” (emphasis added). See COM (2002) 122 final, Report from the Commission – Environmental Technology for Sustainable Development,” Mar. 13, 2003, at 20. “We already know that there are environmental technologies unable to penetrate the market because of a number of technical, economic, regulatory and social barriers. I want the experts in the development, production and use of environmental technologies to share with us their experience about how we can overcome these barriers...*Undoubtedly, environmental technologies represent a growing market at [the] EU and world level[s]...The purpose is not only protecting the environment, natural resources and quality of life. It is also a matter of economic competitiveness*” (emphasis added). See “Breaking Down Barriers to Technologies to Protect the Environment and Boost Competitiveness”, citing Environment Commissioner Margot Wallstrom, IP/03/430 (Mar. 25, 2003).

⁷⁶⁶ During January 2005, the EU Commission determined that the Environmental Technologies Action Program (ETAP) needed to be stepped up so that “Europe can gain ‘first mover’ advantage.” In addition to calling for the establishment of ‘green’ investment funds to “promote the mobilization of risk finance” to aid the development of environmental technologies (i.e., “eco-innovation”) and for the drafting of national action plans for ‘green’ procurement, it also called for the establishment of environmental performance targets for key products, processes and services. “*Such performance targets should address major environmental challenges such as climate change, air and water pollution, efficient energy consumption and the reduction of waste. They should establish benchmarks for environmental performance of key product groups, processes and services complimenting the more traditional standards with ambitious targets for markets to respond*” (emphasis added). See COM (2005) 16 final, at 2, 4-5. Apparently, the EU is aware of and sensitive to the claims made by other WTO parties (e.g., the U.S.) that the TBT Agreement requires product and/or process standards to be *performance-related* whenever possible.

⁷⁶⁷ *Id.*

⁷⁶⁸ See Lawrence A. Kogan, “The Precautionary Principle and WTO Law”, *supra*, note 8 at 91-93.

⁷⁶⁹ “Competitiveness of the European Union Woodworking Industries”, European Commission, Enterprise DG (Oct. 2000), IBN: 92 828 9769 9. “This study evaluates the competitiveness of EU woodworking industries and recommends ways to maintain and improve it. Co-financed by the Enterprise DG and the European Confederation of Woodworking Industries, it is one of a series covering the competitiveness of forest-based and related industries within the overall field of EU enterprise policy.” See Europa website, Publications, Theme: Competitiveness Policy, at: (<http://europea.eu.int/comm/enterprise/library/lib-competitiveness/libr-competitiveness.html>).

⁷⁷⁰ See Jeremy Wall, “European Commission Views on Mutual Recognition Opportunities – A DG Enterprise View of Mutual Recognition Between SFM Certification Schemes in the Forestry Sector”, at 4 (June 7-26, 2000), at: (<http://sfcw.org/mutualrecognition/doc-pdf/MRSeminar2-1-8.pdf>).

⁷⁷¹ See Eurochambres, “European Business Position on the ‘White Paper on the Strategy for a Future Chemicals Policy’”, (Sept. 2001), at p. 6, *cited* in “Looking Behind the Curtain: The Growth of Trade Barriers that Ignore Sound Science” (National Foreign Trade Council), at p. 87, fn 396.

⁷⁷² See “EU Chemicals Policy Review – The View of European Mid-Sized and SME Chemical Manufacturers”, CEFIC (the European Chemical Industry Council), at p. 4, *cited* in “Looking Behind the

Curtain: The Growth of Trade Barriers that Ignore Sound Science” (National Foreign Trade Council), at p. 87, fn 397.

⁷⁷³ See Arthur D. Little, “New Proposals for Chemicals Policy: Effects on the Competitiveness of the Chemical Industry - (Project EP/IV/A/2003/07/03-2) – Study for the Directorate General for Research”, (April 2004), at: (http://www.env-health.org/IMG/doc/adlittlestudy_Chempolicy_19apr04.doc).

⁷⁷⁴ “The EU market [for chemicals] accounts for 27.5 percent of the global market.” See European Commission Staff Working Paper, “Regulation of the European Parliament and of the Council, Concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Establishing a European Chemicals Agency and Amending Directive 1999/45/EC and Regulation (EC) on {Persistent Organic Pollutants}”, [Draft] Extended Impact Assessment {COM (2003) 644 final}, SEC (2003) 1171/3 (10/29/03), at fn 28, at p. 22.

⁷⁷⁵ SEC (2003) 1171/3 (10/29/03), at pp. 22-23.

⁷⁷⁶ See “Green Protectionism”, *supra* note 51, at 25.

⁷⁷⁷ COM (2004) 38 final, at 23-24.

⁷⁷⁸ “Technological developments in the energy sector, especially regarding energy efficiency and renewable energies, are also, but not only, steered by the EU Climate Change policy. The launch of the Emissions Trading System on January 1, 2005, should be instrumental in this respect. Technological developments are also crucial for the preparation of the next steps of the fight against climate change, after the deadlines fixed in Kyoto.” See COM (2005) 16 final, at 3.

⁷⁷⁹ Its objective is to maximize energy efficiency by more efficiently using fossil fuels and traditional biomass and by “increasing the use of renewable energy.” COM (2004) 38 final, at 24.

⁷⁸⁰ It is comprised of 82 countries that have established firm “targets and timeframes for increasing the share of renewable energies in their overall energy mix, thus going beyond the commitments in the Johannesburg Plan of Implementation. There will be a considerable need for environmental technologies in order to boost the share of renewable energies in participating developing countries.” *Id.*

⁷⁸¹ This would include the Montreal Protocol on Substances that Deplete the Ozone Layer, to the Vienna Convention for the Protection of the Ozone (1989); the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1992); the Cartagena Protocol on Biosafety to the Convention on Biological Diversity (2003); the Rotterdam Convention on Prior Informed Consent Procedure (2004); the Stockholm Convention on Persistent Organic Pollutants (2004); and the Kyoto Protocol to the Framework Convention on Climate Change (2005).

⁷⁸² COM (2004) 38 final at 6 and 24 “Work is also ongoing under the Convention on Biological Diversity (CBD). A program on technology transfer is currently being developed which proposes upgrading the Biodiversity Clearing House into a facilitator of technology transfer, for example, of remote sensing equipment or database software.” *Id.*

⁷⁸³ *Id.*, at 6.

⁷⁸⁴ “The SAICM initiative was endorsed by the World Summit on Sustainable Development (the Johannesburg Summit) in September 2002. It is a product of the UN Environment Program, which works in consultation and collaboration with Governments, participating organizations of the Inter-Organizational Program for the Sound Management of Chemicals (the IOMC includes UNEP, ILO, FAO, WHO, UNIDO, OECD and UNITAR), the Inter-governmental Forum on Chemical Safety (of the World Health Organization – WHO) and other stakeholders. See SAICM/PrepCom.2/4, “Report of the Second Session of the Preparatory Committee for the Development of a Strategic Approach to International Chemicals Management, Nov. 16, 2004, at 1.

⁷⁸⁵ According to one self-professed EU advisor, “The EU is forging ahead on a wide regulatory front, changing the very conditions and terms by which new scientific and technological pursuits and products are introduced into the marketplace and the environment. Its bold initiatives put the EU far ahead of the rest of the world. Behind all of its newfound regulatory zeal is the looming question of how best to model global risks and create a sustainable and transparent approach to economic development...By championing a host of global environmental treaties and accords taking the precautionary approach to regulation, the EU has shown a willingness to act on its commitment to sustainable development and global environmental stewardship...Europe has established a new agenda for conducting science and technology that, if followed could begin to wean the world from the old ways [of science] and toward a second Enlightenment.” See Jeremy Rifkin, “The European Dream; Building Sustainable Development”, *E/The Environmental Magazine* (March/April 2005), at: (<http://www.emagazine.com/view/?2308>).

⁷⁸⁶ These include the Technical Barriers to Trade Agreement, the Sanitary and Phytosanitary Agreement and the General Agreement on Tariffs and Trade (1994). See “Looking Behind the Curtain”, *supra* note 22 at 1, 16-20, 72-73, 89-96; “The Precautionary Principle and WTO Law”, *supra* note 8 at 95-101.

⁷⁸⁷ “Unscientific ‘Precaution’: Europe’s Erection of New Foreign Trade Barriers”, at 7-16.

⁷⁸⁸ Article 5.7 of the Sanitary and Phytosanitary ('SPS') Agreement.

⁷⁸⁹ "Looking Behind the Curtain", *supra* note 22 at 42-43; "The Precautionary Principle and WTO Law" *supra* note 8 at 96-97.

⁷⁹⁰ Both the SPS and TBT Agreements emphasize the need of WTO member governments to base their national laws and regulations upon relevant international standards developed through consensus by recognized international standards bodies, or in their absence, upon substantially equivalent national standards of other WTO members. In the absence of such standards, WTO members must demonstrate that they have based their regulatory actions on science-based and performance-oriented criteria – i.e., an objective risk assessment. SPS Arts. 3, 4.1, 5.1, 5.2 and 5.3; TBT Arts. 2.4 and 2.7.

⁷⁹¹ The EU has managed to incorporate the precautionary principle into at least six multi-lateral environmental agreements. See Lawrence A. Kogan, "The Precautionary Principle and WTO Law" *supra* note 8.

⁷⁹² *Id.*, at: pp. 88-90.

⁷⁹³ See "A Precautionary Tale", *supra* note 11.

⁷⁹⁴ There is currently a debate among scholars on this precise issue. See "'Unscientific 'Precaution'", *supra* note 14, at 61-65.

⁷⁹⁵ *Id.* at 27-29.

⁷⁹⁶ According to traditional German and French jurisprudence, it was believed that the emergence of an international custom required the passage of somewhere between thirty to four years. See G.I. Tunkin, "Remarks on the Juridical Nature of Customary Norms in International Law", CAL. L. R. 49:419 (1961); N.M. Mateesco, "La Coutume dan les Cycles Juridique Internationaux" (Paris 1947).

⁷⁹⁷ See Anthony D'Amato, "Trashing Customary International Law", 81 AJIL 101 (1987), at: (<http://www.anthonnydamato.law.northwestern.edu/Adobefiles/a87a-trashing.pdf>); Peter Malanczuk, *Akehurst's Modern Introduction to International Law*, Seventh Edition, Chaps. 3 and 9 (© 1997 Routledge); Phillippe Sands, "Treaty, Custom and the Cross-fertilization of International Law", 1 YHRDL 85 (1998).

⁷⁹⁸ See Anthea Roberts, "Traditional and Modern Approaches to Customary International Law: A Reconciliation", 95 AJIL 757 (2001), at: (<http://www.asil.org/ajil/roberts.pdf>).

⁷⁹⁹ See Michael Byers, *Custom, Power and the Power of Rules – International Relations and Customary International Law*, Cambridge University Press (© 1999, 2001).

⁸⁰⁰ *International Law Anthology*, Anthony D'Amato, Editor, (© 1994 Anderson Publishing Co.), at 110-114.

⁸⁰¹ See Mark Leonard, "The Project for a New European Century", *The Globalist* (5/27/05), at:

(<http://www.theglobalist.com/DBWeb/StoryId.aspx?StoryId=4464>).

⁸⁰² See John O. McGinnis, "Individualism and World Order", *The National Interest*, Winter 2004/05, at pp. 41, 46-48.

⁸⁰³ Actually, it is an alien tort provision (Section 9) of the Judiciary Act of 1789. It grants federal jurisdiction over suits brought by aliens in U.S. courts for tortious acts committed in violation of "the law of nations" (customary international law) or treaties to which the United States is a party. 28 U.S.C. § 1350 (2002).

⁸⁰⁴ U.S. federal courts previously upheld federal jurisdiction and a cause of action under the ATCA, and have allowed claims to proceed for direct or indirect violations of CIL. See, *Filartaga v. Pena-Irala*, 630 F.2d 876 (2d Cir. 1980); *In re Estate of Marcos Human Rights Litigation*, 25 F.3rd 1467 (9th Cir. 1994); *Kadic v. Karadzic*, 70 F.3rd 232 (2nd Cir. 1995); *Wiwa v. Royal Dutch Petroleum Co.*, 226 F.3rd 88 (2d Cir. 2000); Cf. *Flores v. Southern Peru Copper Corp.*, 2002 WL 1587224 (S.D.N.Y. July 16, 2002), which concluded that some acts do not rise to the level of violations of CIL. What is needed to invoke the ATCA, according to these courts, is a violation of a widely signed international convention(s) involving many nations that is directly on point or a clearly recognized norm of CIL reflecting same. "At present, it seems that the courts require the international law rules to be 'specific', 'universal' and 'obligatory'...[They must]...belong to "those clear and unambiguous rules by which States universally abide, or to which they accede, out of a sense of legal obligation and mutual concern. In *Beanal v. Freeport-McMoran Inc.*, 97 F. 3d 161, (5th Cir. 1999)...[the appellate court] upheld the trial court's finding that "the necessary universal consensus on the precise content and legal status of the... 'the polluter pays'... principle...the precautionary principle and the proximity principle [was] lack[ing]" (bold-face emphasis added). See Jan Wouters, Leen De Smet and Cedric Ryngaert, "Tort Claims Against Multinational Companies for Foreign Human Rights Violations Committed Abroad: Lessons from the Alien Torts Claim Act?", Institute for International Law, Working Paper No. 46 (November 2003), citing *Flores v. Southern Peru Copper Corp.*, *supra*, at pp. 7-8, at: (<http://www.law.kuleuven.ac.be/iir/eng/wp/WP46e.pdf>). See also, Mark Lifsher, "Unocal Settles Human Rights Lawsuit Over Alleged Abuses at Myanmar Pipeline", *Los Angeles Times* (3/22/05), at: (<http://www.globalpolicy.org/intljustice/atca/2005/0322unocalsettle.htm>).

⁸⁰⁵ 124 S Ct 2739, 159 LEd2d 718 (June 29, 2004).

⁸⁰⁶ According to legal commentators, the Supreme Court's decision in *Sosa* is extremely significant. "[T]he [ATCA] is not simply a grant of jurisdiction, but [it] also recognizes causes of actions for torts based on violations of customary international law and treaties...At the same time the Court has required that judges be extremely cautious in recognizing such claims [i.e.,]...where no such rights have been created by Congress...allowing only those based on well-established customary international law and self-executing treaties ratified by the United States or implemented by appropriate U.S. laws." See Stephen L. Kass and Jean M. McCarroll, "After *Sosa*: Claims Under the Alien Tort Claims Act – Part I", *New York Law Journal* (Aug. 27, 2004), at: (<http://www.clm.com/pubs/pub-1259528.html>). As stated by Justice Souter, "*We think courts should require any claim based on the present day law of nations to rest on a norm of international character accepted by the civilized world and defined with specificity comparable to the features of the 18th – century paradigms we have recognized*" (emphasis added). 124 S.Ct at 2761-62, 159 L.Ed2d at 749. Based on their reading of the case, these commentators believe that, at least two, and perhaps three, international environmental conventions, none of which the U.S. has ratified, may have already achieved the status of CIL for ATCA purposes – the United Nations Convention on the Law of the Sea (UNCLOS), the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes (1992), and the Convention on Long Range Transboundary Air Pollution (LRTAP – 1979). They opine that the Kyoto Protocol and the United Nations Convention on Biological Diversity "may also reach this status one day." See Stephen L. Kass and Jean M. McCarroll, "After *Sosa*: Claims Under the Alien Tort Claims Act – Part I", supra.

⁸⁰⁷ See Jordan J. Paust, "Customary International Law and Human Rights Treaties are Law of the United States", 20 MICH. J. OF INT'L LAW 301 (Winter 1999); Harold Hongju Koh, "Is International Law Really State Law?", 111 HARVARD L.R. 1824 (May 1998). Cf Curtis A. Bradley and Jack L. Goldsmith, "Customary International Law as Federal Common Law: A Critique of the Modern Position", 110 HARVARD L.R. 815 (Feb. 1997).

⁸⁰⁸ U.S. companies should be especially skeptical of 'leading American business thinkers' and management consultants who promote the virtues of CSR. These self-proclaimed business gurus more often than not recommend public relations strategies that seek short-term 'cover' at the expense of long-term business planning options and established legal standards. One such strategy is an appeasement strategy – for companies to adopt CSR and accept the precautionary principle in order to avoid potentially damaging public harassment / disparagement campaigns launched by civil society extremists. See e.g., Don Tapscott and David Ticoll, *The Naked Corporation – How the Age of Transparency Will Revolutionize Business* (Free Press © 2003). At least one prominent economist and former World Bank official has found that CSR has delivered far less than the spectacular shareholder 'returns' that are promised. See David Henderson, *The Role of Business in the Modern World*, (The Institute of Economic Affairs, London © 2004). According to another prominent economist, "What CSR means, really, is redistribution of wealth," quoting, Dr. Arthur Laffer, cited in: "Arthur Laffer: Corporate Social Responsibility Detrimental to Stockholders", *The New York Sun* (Jan. 19, 2005), the World Business Council for Sustainable Development at: (<http://www.wbcsd.ch/plugins/DocSearch/details.asp?MenuId=1&ClickMenu=&doOpen=1&type=DocDet&ObjectId=MTI4NDU>). See, also Arthur Laffer, Andrew Coors and Wayne Winegarden, "Does Corporate Social Responsibility Enhance Business Profitability?" (Laffer Associates © 2004), at: (<http://www.csrwatch.com/CSRProfitabilityStudy.pdf>).