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Green Management and the Regulatory Process: For Mother Earth, Market Share and Modern Rule

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Green Management and the Regulatory Process: For Mother Earth, Market Share and Modern Rule

Joseph F. DiMento* and Francesco Bertolini**

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I. INTRODUCTION

Among the results of the extraordinary development of public environmental consciousness has been major pressure for industry to alter production patterns. From one perspective, especially in the short-run, the firm finds itself, as it tries to adjust to standards ever more strict, confronted with greater costs associated with this revolution. However, from another perspective, perhaps the long range view for some companies, the new pressures, and the firm's own self-generated motivation to protect the environment, can lead to a new type of business strategy. That strategy, which has been colloquially called "green management," has been associated with positive impacts not only for the environment but for several other variables.¹ Among these variables are: an improved quality of product, a greater commitment on the part of personnel to activities of the firm, improved relations with the local community and with various interest groups, better interactions with the media, lower insurance policy costs, better relations

1. See Jayne W. Barnard, *Exxon Collides with the Valdez Principles*, 74 BUS. & SOC'Y REV. 32, 32-35 (1990) (defining green management); K. Dechant et al., *Environmental Leadership: From Compliance to Competitive Advantage*, 8 ACAD. OF MGMT. 7 (1994); R. Clarke et al., *The Challenge of Going Green*, 72 HARV. BUS. REV. 37 (1994); Charles C. Corbett & Luk N. Van Wassenhove, *How Green is Your Manufacturing Strategy? Exploring the Impact of Environmental Issues on Manufacturing Strategy*, 91 INSEAO WORKING PAPERS (1991); *The British Standards Institution's Standard and other definitions cited in McCloskey, Environmental Management: Its Role in Corporate Strategy*, 32 MGMT. DECISION 27 (1994); Johnston, *Flying Industry's Green Standard*, 138 NEW SCI. 21 (1993). See also K. FISCHER, ENVIRONMENTAL STRATEGIES FOR INDUSTRY (J. Shot ed., 1993); WALDEMAR HOPFENHECK, THE GREEN MANAGEMENT REVOLUTION: LESSONS IN ENVIRONMENTAL EXCELLENCE (1993); John C. Newman & Kay M. Breeden, *Managing in the Environmental Era—Lessons from Environmental Leaders*, 27 COLUM. J. OF WORLD BUS. 210 (1992); Vandermerwe & Oliff, *Customers Drive Corporations Green*, 23 LONG RANGE PLANNING 10 (Dec. 1990); Taylor, *Green Management: The Next Competitive Weapon*, 24 FUTURES 669 (1992); ENVIRONMENTAL MARKETING (Michael J. Polonsky & Alma T. Mintu-Wimsatt eds., 1995); ENRICO SASSOON & CHRISTINA RAPISARDA SASSOON, MANAGEMENT DELL'AMBIENTE: LA NUOVA PRIORITÀ STRATEGICA PER GLI ANNI NOVANTA (1993); THOMAS F.P. SULLIVAN, THE GREENING OF AMERICAN BUSINESS (1992); BRUCE W. PIASECKI, CORPORATE ENVIRONMENTAL STRATEGY: THE AVALANCHE OF CHANGE SINCE BHOPAL (1995); MULTINATIONAL CORPORATIONS, ENVIRONMENT, AND THE THIRD WORLD (C. S. Pearson ed., 1987).

with financial institutions, reduced exposure to several types of business risks, overall reduction of costs, competitive advantages domestically, competitive advantages in world markets, and improved relationships with regulatory agencies or, more generally, with government or the public sector.²

This article analyzes this last hypothesized outcome: improved relations with regulatory bodies and, more generally, implications for the regulatory process of industry movement toward a more aggressive environmental protection strategy.³ Specifically this article will address: characteristics of information used in regulations, standard setting and its relationship to competition in a regulated sector, legal liability, and the firm's overall relationship with the regulating entity [hereinafter "the government" or "the regulator"]. This article further inquires whether green management is a strategy that may allow industry to achieve greater control—or at least some greater influence over—the regulatory process. The authors conclude that while the evidence is mixed, it is also mounting that companies which assume a corporate environmental business strategy will encounter more positive relations with regulators, both those in nation states and international organizations. The authors show how the active firm can more effectively participate in setting environmental rules and norms, how it can achieve a competitive advantage, including internationally by influencing regulations and rules, and how it can reduce its liability exposure. This article also addresses the relationship of green management to the ultimate object of concern: environmental quality.

2. See generally Ulrich Steger, *Corporations Capitalize on Environmentalism*, 17 BUS. & SOC'Y REV. 72 (1990); Bloom & Martin, *Hazardous Waste is Every Manager's Problem*, SLOAN MGMT. REV., Summer 1991, at 75; James Gustav Speth, *EPA Must Help Lead an Environmental Revolution in Technology*, 21 ENVTL. L. 1425 (1991); Art Kleiner, *What Does It Mean to be Green*, HARV. BUS. REV. 38 (1991); J. Ladd Greeno & s. Noble Robinson, *Rethinking Corporate Environmental Management*, 27 COLUM. J. OF WORLD BUS. 223 (1992); Newman & Breeden, *supra* note 1; Michael E. Porter & Claas van der Linde, *Towards a New Conception of the Environment-Competitiveness Relationship*, (mimeograph, April 20, 1994) [hereinafter Porter & Van der Linde]; Michael E. Porter, *America's Green Strategy*, SCI. AM., Apr. 1991, at 168. See also Francesco Bertolini, *Quando Il Jeans Diventa Green*, L'IMPRESSA AMBIENTE, 1994, at 40 (discussing Italy); Francesco Bertolini, *Industria e Regolatori Pubblici a Confronto Con La Sfida Ambientale Nell'Esperienza Degli Stati Uniti*, 2 ECONOMIE E DIRITTO DEL TERZIARIO 655 (1994).

3. Our examples are American, Asian and European. See *infra* notes 10-17 and accompanying text on the U.S. System. In the European Community see the firm's interactions with regulators around environmental impact assessment and norm setting within the members states. See also Hans Jarass & Joseph F. DiMento, *Through Comparative Lawyers' Goggles: A Primer on German Environmental Law*, 6 GEO. INT'L ENVTL. L. REV. 47 (1993) (regarding Germany's executive regulations and administrative rules for the Federal Emissions Protection Act and the Waste Act); E. CROCI, ET AL., *AGENZIE E GOVERNO DELL'AMBIENTE: IL CASO ITALIANO A CONFRONTO CON LE ESPERIENZE ESTERE* (1994) (comparing the regulatory systems in European Community, Italy, France and Germany).

II. GREEN MANAGEMENT DEFINED

Herein this article leaves open-ended the definition of green management. The term has been used broadly and differently in the literature. Among the constituent parts: (1) a commitment to research and development to create innovative technologies and processes—either for use in the firm's own production or as a product for sale; (2) innovations aimed at reducing environmental impacts in the firm's relationships with its dependents and subsidiaries; and (3) development of products which are environmentally friendly (i.e., have fewer negative environmental impacts than other products in the same market).

One encompassing understanding is that green management is the set of activities which moves the firm to act independently of existing standards for environmental protection and to act to decrease negative impacts or increase positive impacts of its actions on the environment, even when regulatory standards will be surpassed.⁴ Some associate green management with companies that identify a clean system of production linked to a policy of pollution prevention, companies that treat as *equally* important economic and ecological objectives, and companies which seek to reduce wastes and maximize use of natural resources whether those be acquired resources or those held in common (such as the air and water).⁵

Part of the difficulty in definition derives from uncertainty as to what exactly constitutes sound behavior from an ecological perspective. For example, Chloro-fluorocarbons (CFCs), presently the target of an international phase-out, until recently were considered safe products. Now many nations have committed to eliminate most uses of CFCs (and other ozone depleting substances) by the year 2000 under the amended Montreal Protocol⁶ or earlier under domestic or other international law.⁷

Even what qualifies as a "green product" is a point of some controversy. Canada's giant grocery chain Loblaw's used one definition in the launching of its new line: the new product must be equal in every respect to the products already in commerce except with regard to its impact on the environment. A much more elaborate approach is employed by the Swedish automaker Volvo using its "EPA" system. This employs a number of indices: the reduction of natural resources, and the extraction of primary resources, the use of land, emissions into air, water and

4. See McCloskey, *supra* note 1.

5. See HOFFENHECK, *supra* note 1.

6. *Montreal Protocol on Substances That Deplete The Ozone Layer*, 1987 INT'L LEGAL MATERIALS 261591C.

7. THE 1985 VIENNA CONVENTION ON THE PROTECTION OF THE OZONE LAYER, BASIC DOCUMENTS OF INTERNATIONAL ENVIRONMENTAL LAW—VOLUMES 1-111 (Harold Hohman, ed., 1992).

the soil. The result of this system is an environmental load unity, which allows comparisons of different choices of materials.⁸

III. THE REGULATORY PROCESS: THE U.S. EXAMPLE

The regulatory process in the United States is highly and increasingly complex, despite periodic attempts at reform and simplification. Complexity results, in part, from the several levels of regulation to which industry is subjected: the federal, state, regional and local—and in an embryonic, yet dramatic way, the international.⁹

The firm may be regulated through adjudication, informal decision making or, most comprehensively for our purposes, rulemaking. Adjudication is the quasi-judicial activity of an administrative agency wherein an order, injunction or declaration is made which specifically affects the disputing parties. For example, through adjudication a license is granted to or revoked from a company. Informal decisions are innumerable and refer to those daily government actions of direction and advice which take place absent a formal record or evidentiary hearing; these decisions relate to the activities of the firm as a single entity but do not aim to influence a whole sector.¹⁰ Rulemaking is aimed at making law that has *general application and future effect* for an industry. It is sometimes referred to as quasi-legislative activity.¹¹

8. See Rotherberg & Maxwell, *VOLVO: A Case in the Implementation of Proactive Environmental Management*, in *THE GREENING OF INDUSTRY*, Boston, Massachusetts (1993). Other approaches to classifying a green product are more complex and include quantification of a number of variables including the waste produced per metric ton of finished product and the percentage of recycled materials used in packaging. See Deloitte Touche Tohmatsu International, IISD, *Coming Clean, SUSTAINABILITY*, London, 1993, at 61. Nonetheless, definitions are sufficiently standard for interested groups to be able to quantify the generation of new green products. For example, the Marketing Intelligence Service Ltd. counted the introduction of green products that had been made across countries it studied. Its tally is presented in Appendix 1.

9. For example, in California the area of air quality regulation emanates from: (1) the federal government, primarily via the Environmental Protection Agency's implementation of the Clean Air Act, 42 U.S.C. §§ 7401-767(q) (1995); (2) the State government, via the Air Resources Board implementation of federal air law and state air legislation, CAL. HEALTH & SAF. CODE §§ 24378-24398, §§ 39000 et seq., and §§ 44300-44394 (West 1995); (3) regional government, via air quality management districts which implement both state and federal law under rules which they adopt to meet air quality standards; (4) county government which exercises separate authorities to control some kinds of air pollution; (5) cities which have separate authorities consistent with or as required by authorities at other levels of government; and (6) international or global agreements like the Montreal Protocol, an international treaty regulating ozone depleting chemicals including CFCs through a near term production freeze, a phased reduction of production, and a trade ban.

10. For example, a company may be advised about its activities providing concessionaire services in a national park or an informal opinion may be offered by an agency employee about the acceptability of a technology for emission reductions. See Warner M. Gardner, *The Informal Actions of the Federal Government*, 26 AM. U. L. REV. 799 (1977).

11. Some brief examples include: (1) setting a standard under the Clean Air Act for hazardous air pollutants; (2) specifying general categories of best available technology under a pollution control statute; (3) determining what materials may be utilized in recyclable products sold to the federal government; (4) determining the characteristics of a market based program for cleaning the air of a region of the country. Cf.

In implementing legislative directives in the environmental arena, as in all U.S. regulatory arenas, the federal government (and to one degree or another state governments)¹² undertakes a standard process outlined below using the Environmental Protection Agency (EPA) as an example.

The agency legislatively authorized to make law implementing a statute gathers information internally on the subjects about which it will promulgate rules.¹³ For example, for law on air quality control: (1) the policy analysis and review branch of an agency undertakes literature searches, sponsors research, and carries out its own analyses of market-based strategies for realizing air quality objectives; (2) an environmental engineering and technology branch of the agency gathers information on the leading technologies used in the automobile emissions control industry.

The agency next publishes a proposed regulation in the *Federal Register*, a government publication which serves to inform the regulated industry and the public of a contemplated government regulatory activity. For example, the EPA proposes under the 1990 amendments to the Clean Air Act an emissions trading program and proposes parameters of the permits for it, the rules for trading, and the markets in which the permits will be traded. The agency also proposes to define the best available control technology by reference to several characteristics.¹⁴

A Notice and Comment Period follows during which the agency invites and reviews information supplied by interested parties. Industry groups, environmental interest groups, private citizens, other government agencies, and others

CROCI ET AL., *supra* note 3 (comparing perspectives with Italy, France, Germany and the European Community).

12. State processes in the United States vary. In general terms they are similar to the federal model which follows in the text. For an example of California's process, see California Administrative Procedure Act, tit. 2, div. 3, part 1, ch. 3.5, CAL. GOV'T CODE, § 11340 (West 1995). At the regional and local levels the process may be based more fully on public hearings, although some regional agencies will formally solicit comments from any interested parties. At the municipal (city and county) level, proposed ordinances may address the same general subject matter as regulations from other levels of government. Again, municipal processes differ but usually include mandated notice of proposed regulatory actions and public hearings. See SAN JOSE MUN. CODE, ch. 18.12, Precise Plans, part 2, Procedure for Adoption or Amendment (1979).

Regulatory relations among these various levels of government are complex. This has serious implications for the regulated firm. For the purposes of this article, we simply summarize that in certain regulatory fields the federal (or higher) level of government may preempt a field precluding the lower level of government from making law which conflicts with the higher level law.

Preemption analysis itself is complex. For present purposes it means that where a legislature has adopted a regulatory scheme, local legislative control over the subject as covered by the higher level government regulation ceases. On the relationships between federal and state authorities in environmental law, see generally ZYGMUNT J.B. PLATER, ET AL., ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY, ch. 10 (1992); SHELDON M. NOVICK & BILL PEDERSON, LAW OF ENVIRONMENTAL PROTECTION, ch. 6 (S. Novick ed., 1993).

13. See NOVICK & PEDERSON, *supra* note 12 (examining the authorities, organization and procedures of the United States Environmental Protection Agency).

14. 40 C.F.R. § 424 (1992).

may supply views and opinions on the proposed rule. They do this by critiquing the parameters or general concept of the rule or supporting its characteristics and calling for the proposed rule's greater application. At this time interest groups can inform the agency of their views on the proposed rule: is it basically sound? how would the interest group change the rule? upon what information does the interest group making comments base its position? Through this means, scientific information is generated and debated.¹⁵ For example, a company to be regulated by the emissions trading program may submit an analysis arguing that the program does not reflect an understanding of the industry's ability to monitor its own emissions. Additionally, an environmental interest group may assert that the definition of "best available control technology" does not reflect knowledge of leading engineering in other jurisdictions.

The EPA then publishes the rule. After a legally specified period, the rule is promulgated as law. This is referred to as a regulation or a rule which is added to U.S. law in the Code of Federal Regulations.

Challenges to the rules may, and often do, occur in the courts. Several possible theories are employed to seek the overturn of a proposed regulation, including: (1) the agency failed to follow its own mandated procedures; (2) the agency exceeded its authority as delegated to it by the legislature; and (3) the agency abused its discretion in processing information supplied in the comment period.¹⁶

IV. THE REGULATORY PROCESS: TRANSNATIONAL PERSPECTIVE

Legal systems differ internationally as to elements which they provide *de jure* or *de facto* in their processes for implementing and enforcing environmental law and for creating norms, promulgating rules or setting standards. The terminology in the regulatory process varies across nations and International Government Organizations (IGOs). Nations fall along a continuum depending on how centralized the generation and collection of information used in developing rules and the nature and amount of participation allowed interested parties. This includes the affected firms commenting on, and participating in, making rules for environmental protection.¹⁷ International legal systems differ on theories of

15. This process may be more or less formal. In the more formal variety, submissions may be subject to cross examination, oral arguments may be allowed, the right to submit evidence in rebuttal may be recognized, and other procedures which resemble an adversary hearing may be employed. See generally DONALD D. BARRY & HOWARD R. WHITCOMB, *THE LEGAL FOUNDATIONS OF PUBLIC ADMINISTRATION* (2d ed., 1987).

16. Administrative Procedure Act, 5 U.S.C. § 706 (1977).

17. See Ludwig Krämer, *The European Economic Community*, in TURNER T. SMITH JR. & PASCALE KROMAREK, *UNDERSTANDING US AND EUROPEAN ENVIRONMENTAL LAW: A PRACTITIONER'S GUIDE* (1987) (giving examples from the European Community); Turner T. Smith & Roszell D. Hunter, *The European Community Environmental Legal System*, 22 ENVTL. L. REP. (1992); Lawrence I. Sperling & Ira R. Feldman, *The Transboundary Movement of Hazardous Waste: Implementation and Enforcement of Control Regimes in*

liability which they apply in environmental law and on the amount of discretion allowed in enforcement.¹⁸ Furthermore, they have different guiding principles on specific activities of green marketing, ecolabeling (designating a product as meeting governmental standards of being "environmentally friendly") and related tactics of the green management and certification of best control technology.¹⁹ France, for example, has a rulemaking system mainly lodged in centralized and hierarchical administrative units which allow modest formal participatory roles to non-government interests.²⁰ In the decentralized German system, the involvement of regulated parties comes at the point of promulgation of executive regulations and administrative rules. The process involves hearings and formal participatory mechanisms which provide opportunity for citizen participation.²¹ Dutch environmental law is "very liberal"²² in allowing public participation in government proceedings. The formal rulemaking procedures of U.S. administrative law may be most fully developed in the United States but most legal systems have some significant degree of interaction between the firm and the regulator. Each legal regime lodges a degree of discretion within administrative units or processes as to treatment of the perspectives of regulated companies. Those interactions and that discretion are influenced by the dynamics described in this article. Companies which do business exclusively in their country of incorporation and multinational firms which wish to affect the nature of the environmental control to which they are subjected, may be interested in the strategic lessons which follow.

the European Community, 22 ENVTL. L. REP. (1992); RONALD BRICKMAN, *CONTROLLING CHEMICALS: THE POLITICS OF REGULATION IN EUROPE AND THE UNITED STATES* (1985); G. MAJONE, *DEREGULATION OR RE-REGULATION? REGULATORY REFORM IN EUROPE AND THE UNITED STATES* (1990); Jarass & DiMento, *supra* note 3; CROCI ET AL., *supra* note 3 (discussing the treatment of the European Agency of the Environment established by CEE Rule n. 1210/90 on May 7, 1990). See also CROCI ET AL., *supra* note 3 (regarding France); Christian Huglo, *France*, in SMITH & KROMAREK *supra* (discussing France); Echard Reh binder, *The Federal Republic of Germany*, in SMITH & KROMAREK, *supra* (examining Germany); S. SALMI DIRITTO DELL' AMBIENTE: PRINCIPI FONDAMENTALI DI DIRITTO AMBIENTALE (1994) (analyzing Italy); Richard Macrory, *The United Kingdom*, in SMITH & KROMAREK, *supra* (discussing the United Kingdom); T. Schrecker, *Resisting Environmental Regulation: The Cryptic Pattern of Business-Government Relations*, in ROBERT PAEHLKE & DOUGLAS TORGERSON, *MANAGING LEVIATHAN* (1990) (explaining Canada and Western Europe).

18. See *infra* notes 57-85 and accompanying text (discussing liability of the firm). In some legal systems the amount of prosecutorial discretion is severely circumscribed. Italy is an example. See generally E. DOLCINI ET AL., *COMMENTARIO DELLE "MODIFICHE AL SISTEMA PENALE"* (1994); GABRIO FORTI, *COLPA ED EVENTO NEL DIRITTO PENALE* (1990). See Martin Führl, *Proactive Instruments in Business Management*, 2 ELNI NEWSL. 11 (1995); T.F.P. SULLIVAN, *THE GREENING OF AMERICAN BUSINESS* (1992) (citing Germany's Blue Angel Program, Japan's Eco-Mark, and Canada's Environmental Choice). Independent organizations also develop standards for eco-labels, such as Green Seal and Green Cross in the United States. *Id.*

19. CROCI ET AL., *supra* note 3.

20. *Id.*

21. Jarass & DiMento, *supra* note 3; Reh binder, *supra* note 17.

22. See Thijs Drupstein & Piet Gilhui, *The Netherlands*, in SMITH & KROMAREK, *supra* note 17; see also M. POLONSKY & A. MINTU-WIMSATT, *ENVIRONMENTAL MARKETING* (1995).

Internationally, the International Standards Organization (ISO) Technical Committee's 14,000 series document will also influence regulatory approaches since it will "change and broaden the ways environmental management is conducted and regulated."²³ Participant countries will decide how the standards are introduced into the national regulatory approach. Generally, the aim of the standards is to encourage environmental management and to rely on market forces to effect environmental performance improvements, aided by environmental impact analysis and auditing. Companies targeted by the standards will be required to incorporate environmental regulations into their management activities. Because of the ISO's worldwide scope, the initiative is significant for the determination of green management thinking.

V. REASONS FOR ADDRESSING IMPLICATIONS OF GREEN MANAGEMENT FOR THE REGULATORY PROCESS

For several reasons, industry may wish to consider promoting green management which implicates the regulatory process. First, there is an ever-growing frustration on the part of the private sector in many Western nations based on their perceptions of over-regulation. Green management may be a means not only of objectively controlling the number and nature of regulations, but also of improving and understanding the rationale for regulations.

Second, and related, there exists great public support for environmental protection through regulation and other means. Industry can expect continued societal pressure, both directly on firms to behave in a manner perceived to be environmentally responsive and indirectly through public pressure on regulators to advocate ever more stringent standards.

Third, environmental protection is increasingly advocated within the firm. Employees and managers understand, or at least suspect, that environmental standards can be made compatible with the firm's interests. For example, internal pressures are felt to promote environmentally sensitive production processes, if for no other reason than recognition of the link between strong environmental standards and health and safety in the work place.²⁴

Fourth, and perhaps most appealing, is the hypothesis that green management strategies assist the firm in gaining control over its risk exposure. In many jurisdictions, the external environment (that set of organizations, institutions and

23. The ISO is a federation of national standard bodies from 70 countries. Member bodies cover the world from Albania to Zimbabwe. The member body of the United States is the American National Standards Institute. Personal communication with ISO Representative John Kinsella, Feb. 26, 1966 (on file with the author).

24. See H. TIBBS, *INDUSTRIAL ECOLOGY: AN ENVIRONMENTAL AGENDA FOR INDUSTRY* (1993).

procedures to which the firm must relate and respond)²⁵ is characterized by large, growing legal liability for environmental insults.²⁶

Fifth, and more technically and specifically, the processes of rulemaking have been dominated in recent years by what some observers have called regulatory science.²⁷ This is a study undertaken to address specific subjects of governmental regulation (as opposed to, for example, a basic science aimed at generating knowledge independent of application). Scientific questions are articulated with a view toward environmental controls. Calls for research proposals are motivated by the need to meet the requirements of environmental laws. The scientific enterprise may be undertaken in sites dominated by regulator and/or regulatee scientists. Moreover, the questions asked by agencies in making rules and setting standards may themselves be trans-scientific, demanding input from policy.²⁸ Thus a firm which desires to be driving the science rather than to be driven by its results, as articulated by the regulator or by competing firms, may wish to set the agendas for at least some of this work. Multinational corporations working in the European Union will wish to influence the nature of the directives to member countries in which they operate. A newcomer to a nation developing more stringent environmental rules, sometimes on the basis of a rather incomplete science, may wish to introduce the leading work on the health effects of products to government regulators who will make decisions on standards which will apply in the country.

Globally, major producers of products with environmental effects will wish to help determine the basis for setting national controls on the pollutants associated with those products. An evolving example is Australia's implementation of its self regulatory Greenhouse Challenge Program created to meet the goals of the United Nations Framework Convention for Climate Change (1992). The exact mix of controls chosen to meet the goals may be highly influenced by the industries which produce atmospheric pollutants.

VI. THE LESSONS

This section summarizes the major theoretical perspectives on, and legal analyses of, regulation and enforcement of environmental law as they relate to the

25. See JOSEPH F. DiMENTO, *MANAGING ENVIRONMENTAL CHANGE* (1976) (discussing the concept of the external environment).

26. See *infra* notes 57-85 and accompanying text.

27. See Shelia Jasanoff, *Procedural Choices in Regulatory Science*, 17 *TECH. IN SOCIETY* 279 (1995); K. Sexton, *Science and Policy in Regulatory Decisionmaking—Getting the Facts Right About Hazardous Waste Pollutants*, 103 *ENVTL. HEALTH PERSPECTIVES* 213 (1995); McGarity, *infra* note 28.

28. These are "epistemologically speaking, questions of fact and can be stated in the language of science, [but] they are unanswerable by science; they transcend science." Alvin M. Weinberg, *Science and Trans-Science*, 10 *MINERVA* 209 (1972). See also Thomas O. McGarity, *Substantive and Procedural Discretion in Administrative Regulation of Science Policy Questions*, 67 *GEO. L.J.* 729 (1979).

firm. This section also identifies and discusses the implications of this knowledge for the company contemplating a green business strategy. The discussion starts by addressing the nature of the scientific basis of regulations. It then presents the work on regulation and business competition, including the international area. Following this, the potential legal liability associated with environmental regulation is discussed. Finally, there is a more general section on opportunities for cooperation between government and the regulated business community.

A. *Characteristics of Scientific Information Employed in Lawmaking Suggest How Firms Employing a Green Strategy May Effectively Participate in the Regulatory Process*

1. *The Regulation Information Base*

Information used in formulating the rules and standards which affect the firm has been described quite fully in the literature on regulation. Several characteristics of this information in the context of environmental regulations suggest means by which a green strategy can be influential in participating in the regulatory process.

Information available to regulators may be: (1) *spotty*, meaning some information is relevant and scientifically acceptable but there are gaps in what is ideally necessary to proceed to a policy or law; (2) *excessive*, meaning there is too much data to be intelligently processed and/or some of that information is not relevant; (3) *unavailable*, because it is too costly, proprietary, or based on research not yet completed; (4) *inaccessible*, meaning its form is not readily amenable to translation for regulatory purposes; (5) *inadequate*, requiring conclusions that are transscientific, including generalizations which are directly relevant to important outcomes from the industry perspective; (6) *disputed* within the scientific community (is it really information?); or (7) of *questionable legitimacy* (is the protocol employed generally acceptable or are conclusions based on too small or unrepresentative samples, bad instrumentation, or sloppy execution?).²⁹

In light of the nature of information which may be the basis for regulation, the firm is concerned about the extent to which government is capable of making reasonable decisions about standards that are objectively necessary to realize an accepted environmental goal. The government may err because of the nature of the information which it must employ in promulgating rules and in setting standards. Even in trying to promote a green agenda, as legislatively demanded,

29. *Id.* See Joseph F. DiMento, "Der Consensus Workshop: Ein Geeignetes Forum für Grenzwertsetzung" (The Consensus Workshop: Institutional Innovations for Improving the Scientific Basis of Environmental Regulations, G. Winter ed. 1986) (Translated version on file with *The Transnational Lawyer*). The challenge to achieving consensus may, at times, be great. *Id.*

government may in fact create additional problems for the firm without simultaneously achieving its own environmental protection objectives.

Circumstances surrounding a proposed air quality rule in California are illustrative. In 1991, in an attempt to implement provisions of the Clean Air Act, there arose the possibility of a general ban on many types of fragrances used in perfumes, after-shave lotions and related products. The market share loss to California companies would have been considerable. The California agency responsible for implementing the rule intended to reduce the alcohol present in these products. In fact, it had proposed a rule which could have caused a complete reformulation of the products. A brief summary of the events which prevented the proposed rule from being enacted anticipates some of the lessons noted below. A trade association spent a year explaining why fragrances are dependent upon alcohol as a solvent and why it was impossible to reformulate the existing products. The result was an exemption of the products from the standards and a redefinition of the standards to reasonable levels—reasonable from the perspectives of quantitative standards and of the date when they would become effective.³⁰

2. Implications for Green Management

These characteristics of information used in the regulatory process suggest a number of actions to the firm whose objective is to promote positive relationships with the regulator.

First, industry-supplied information may be perceived as more credible if its source is a firm understood to be sympathetic to environmental protection objectives and actively pursuing a green management strategy. Second, credibility can be enhanced by offering high quality information to the regulator, including information that the firm exclusively possesses. Only the firm, for example, has exact information on production processes and on likely costs under one regulatory regime or another. Environmental professionals within the firm can also help to collect (through specialized channels such as international research networks), organize, and explain the information from which rules will eventually be crafted.

As elaborated below, the firm can contribute to the information base through venues other than the formal rulemaking process. An example is the consensus workshop employed in the United States in the 1980s.³¹ Green companies may

30. See 17 CAL. CODE OF REG. § 94507 et seq. (1995).

31. Here the leading investigators from industry, government, and public interest groups came together to review and critique the scientific base of a regulatory relevant environmental issue—such as the health impacts of formaldehyde, or benzene or an element of automobile emissions. See AIR QUALITY STANDARDS: THE ROLE OF THE HEALTH EFFECTS INSTITUTE IN CONDUCTING RESEARCH. BRIEFING REPORT TO THE CHAIRMAN, SUBCOMMITTEE ON HUD - INDEPENDANT AGENCIES: COMMITTEE ON APPROPRIATIONS (1986); see generally CONSENSUS DEVELOPMENT CONFERENCE, OFFICE OF MEDICAL APPLICATIONS OF RESEARCH,

take a leadership position in these proceedings. An international example is the conference held by The Commission of the European Community to assist in developing approaches to communications regarding major hazards. The context was implementation of the so-called "Seveso" Directive (82/501/EEC), and the representatives of numerous interest groups, including industry, throughout Europe participated and presented papers.³² More directly, green companies can assist in determining the information base upon which regulation is built by undertaking or sponsoring cutting edge research. They can support forums or conferences on issues lacking scientific consensus and criticize possibly flawed science which may appear to be supportive of a given type of environmental controls. Conversely, the firm can build its green reputation by critiquing results offered by other groups to counter regulation, which themselves may be flawed, such as calculations of costs associated with environmental regulation. The green company can improve the information base and improve the probability that rules will be based on information that it helped develop.

B. Theories of Regulation Suggest That Green Management Can Represent a Strategy for Achieving and Maintaining a Competitive Advantage for the Firm

The textbook lesson on how regulations are formally processed does not address what many students of law and public policy consider to be one of the central issues of government-business relations: the influence of regulated, and potentially regulated, parties in the making and enforcing of rules and regulations.³³ This section briefly presents the leading theories on this aspect of regulation and then inquires what they may suggest about the firm adopting a "green strategy."

Various versions of a "capture theory" of regulation have been expounded. There exists little empirical support for any particular version, but the notions are provocative for those studying the green management phenomenon.³⁴ Under one understanding of regulatory capture, the regulatory process is dominated by a class of organized private entities. Government is directed toward promoting and

NATIONAL INSTITUTE OF HEALTH; BETHESDA, MARYLAND.

32. On recent consensus workshop type activity on the subject of multiple chemical sensitivity, for example, see Barinaga, *Better Data Needed on Sensitivity Syndrome*, 251 SCI. 1558 (1991). See H.B.F. GOW & H. OTWAY, COMMUNICATIONS WITH THE PUBLIC ABOUT MAJOR ACCIDENT HAZARDS (1990) (discussing the Seveso Directives).

33. See *supra* notes 9-16 and accompanying text.

34. Toni Makkai & John Braithwaite, *In and Out of the Revolving Door: Making Sense of Regulatory Capture*, 12 J. PUB POL'Y 61 (1976).

protecting the interests of the most powerful elements within an industry.³⁵ Industry acts to exploit those forces that will protect a valued position gained in the market. R. Kagan has succinctly summarized the cause of capture as rooted in “‘rent-seeking’ by business interests who pressure politicians to promulgate regulations that disadvantage certain business competitors.”³⁶ The economic explanation, as articulated classically by Stigler and others, describes a “market” for regulation as: the right to control others who might wish to enter the regulated field either through price regulation or restricted entry into the field. The aim of those seeking regulation may be to eliminate price competition, restrict entry to the field, or gain influence over the regulator.³⁷

Other theories see the regulator in a less passive mode. In the public interest models, rules result from agencies acting dispassionately to address the complexities of interactions in the business community; government objectively generates and collects regulatory specific information with the goal of controlling the negative effects of an unregulated activity. In this view, reasonable standards are articulated with the assistance of in-house government regulators, the public interest community, and regulated entities. Thus, regulatory results may favor a leading company, but that is not because of any sinister plot by the industry leaders. Rather, limitations on competition derive from the natural results of a small number of usually larger firms being capable of reaching strict control levels (or convincing policy makers of the wisdom of differential levels) which were set by others, not demanded by the successful firm.

In a similar but distinct version of regulatory analysis known as “warring interest groups,” regulation, a result of pluralism, comes from competition among interest groups. Regulation is the result of groups struggling *with each other* for

35. The literature on this issue is immense. See D. TRUMAN, *THE GOVERNMENT PROCESS* (1951); M.J. BERNSTEIN, *REGULATING BUSINESS BY INDEPENDENT COMMISSION* (1955); G. KOLKO, *THE TRIUMPH OF CONSERVATISM* (1963); *THE POLITICS OF REGULATION* (S. Krislov & L. Musoff eds., 1964); G. KOLKO, *RAILROADS AND REGULATION* (1965); THEODORE J. LOWI, *THE END OF LIBERALISM* (1969 & 1979); Wilson, *The Politics of Regulation, in SOCIAL RESPONSIBILITY AND THE BUSINESS PREDICAMENT* (J. McKie ed., 1974); PAUL J. QUIRK, *INDUSTRY INFLUENCE IN FEDERAL REGULATORY AGENCIES* (1981); MAGAT, ET AL., *RULES IN THE MAKING: A STATISTICAL ANALYSIS OF REGULATORY AGENCY BEHAVIOR* (1986); Laffont, *The Politics of Government Decision-Making: A Theory of Regulatory Capture*, 106 Q.J. OF ECON., 1089 (1991); R. Kagan, *Regulatory Enforcement*, in *HANDBOOK OF REGULATORY AND ADMINISTRATIVE LAW* (D. Rosenbloom & R.D. Schwartz eds., 1994); Ayres & John Braithwaite, *Partial-Industry Regulation: A Monopsony Standard for Consumer Protection*, 80 CAL. L. REV. 13 (1992); Macey, *Promoting Public Regarding Legislation Through Statutory Interpretation: An Interest Group Model*, 80 COLUM. L. REV. 223 (1986); Jennifer L. Forrence & Michael E. Levine, *Regulatory Capture, Public Interest, and The Public Agenda, Toward a Synthesis*, 6 J. LAW, ECON & ORG. 167 (1990).

36. Kagan, *supra* note 35, at 384.

37. Resulting regulation is of low visibility to the public and the results are shrouded in public interest propaganda. Wilson, *supra* note 35.

favorable regulatory treatment and from their attempts to influence administrative and independent regulatory agencies.³⁸

1. Implications for Green Management

The regulatory process may thus provide an opportunity for the leaders of an industry to try to influence government to set standards at a level desired by the leaders. While that standard may be low, often it is not. When the strategy is to require the highest level that the industry leaders can achieve, the idea is to drive out the smaller, or less sophisticated firms, whose resources are insufficient to reach the higher standard.³⁹ Leaders of the industry may also seek to be protected from newer, and perhaps more competitive, firms. To do so, they would promote a policy through which more rigid standards are applied only to new entrants in the field.⁴⁰

These understandings of influence on the regulatory process suggest several tactics for the regulated firm. A firm using green management techniques may try to dominate the recommendations and decision-making of the agency by providing information about leading approaches for achieving environmental objectives. Industry leaders would present perspectives which may imply a type of control or a specific standard and link that choice to a greater degree of environmental protection. Industry leaders may also offer powerful critiques of information supplied by competitors seeking different, perhaps more relaxed standards, or seeking to maintain existing norms.

Most forcefully, industry leaders may promote demanding environmental standards which only they can meet.⁴¹ A leader in the field of emissions limitations on automobiles, or on their fuel efficiency, might push the U.S. Congress and in turn the EPA, to set vehicle/mobile source norms at stricter

38. In modern environmental regulation, a relatively objective environmental science may preclude manipulation by the leading industries of the regulatory process. Kagan, *supra* note 35. The public interest or warring pluralism model may today be a more accurate model than a capture formulation. See Gilbert Becker, *The Public Interest Hypothesis Revisited: A New Test of Peltzman's Theory of Regulation*, 49 PUB. CHOICE 223, 226 (1986). There is also a school of thought that sees partial capture as being in the public interest. See Eddie Dekel & Suzanne Scotchmer, *Profit Protection in Social Regulation and Licensing: A Normative Theory of Capture*, Working Paper No. 163, Univ. Of Calif., Berkeley. Dekel and Scotchmer speculate that "a regulator may generate 'efficient profits' in order to prevent firms from 'shirking' in the amount of care they take." *Id.* at 3.

39. See KOLKO, *THE TRIUMPH OF CONSERVATISM*, *supra* note 36; *THE POLITICS OF REGULATION*, *supra* note 36.

40. See Porter & van der Linde, *supra* note 3. See also BRUCE A. ACKERMAN & WILLIAM T. HASSLER, *CLEAN COAL DIRTY AIR* (1981); *Cleaning Up*, THE ECONOMIST, Sept. 8, 1990; *Regulate Us Please*, THE ECONOMIST, Jan. 8, 1994, at 69 (describing efforts by waste management companies, including those which run incinerators, to work with environmental activists to lobby for stricter controls on disposal into landfills).

41. See Wilson, *supra* note 35.

levels.⁴² Germany has used its leadership in automobile pollution controls to attempt to determine standards for the European Union which only a few member countries could initially achieve. In the early 1970's, Germany's decision to set lead content of petrol at .4 gle (upper limit) and .15 gle (lower limit), drove the standard finally reached by the Commission of the European Communities. In addition to the positive effects on the German forests, the effect on the nation's car industry was also beneficial.⁴³ Though this strategy may generate some temporary shifts in profits, it may have the benefit of driving some of the competition from the field.

The links of regulation to business competition are complex and no single intervention will lead to firm dominance. The impact of these tactics will no doubt depend on several contextual variables. These include: the level of pre-existing standards, the distribution of firms within the industry along a dimension of competitiveness, and the perceived longevity of new standards.

Porter's work addresses the competitive implications in the international context of strict environmental standards. From a macroeconomic perspective, nations with the most rigorous environmental norms are said to be the first in export. Examples include Sweden's stringent standards for noise which led to its leadership in export of compressors, Japan's strict norms for energy usage in cars and appliances mandated by The Japanese Energy Conservation Law of 1979, and pollution control technology standards in Denmark and Germany.⁴⁴ Also, when a country defines environmental standards for products sold domestically and its standards are more restrictive than those of other countries, it may be able to limit importation of the regulated products.⁴⁵ Examples include the German Packaging Law and the Danish "bottle law."⁴⁶ After a challenge by competitors, the European Court of Justice upheld the Danish law, concluding that environmental protection is a requirement that can limit the rules of a free market. The introduction of rigorous standards from an international perspective can also favor foreign competitors if the domestic industry is not prepared to meet those standards.⁴⁷

42. Here the reference includes the U.S. Congress because the field of federal air quality controls is one of the few where Congress very explicitly determined the standards for a product, rather than addressing a problem through delegation of rulemaking authority or legislating in general terms such as requiring best available control technology. 42 U.S.C. § 7401 (1995) (discussing emission standards for moving sources).

43. See Nigel Haigh, Panel discussion, *The Role of Technical and Economic Analysis in Environmental Regulation*, in SMITH & KROMAREK, *supra* note 17.

44. See generally MICHAEL E. PORTER, *THE COMPETITIVE ADVANTAGE OF NATIONS*.

45. *Id.*; CYNTHIA A. MONTGOMERY, *STRATEGY: SEEKING AND SECURING COMPETITIVE ADVANTAGE* (M.E. Porter ed., 1991); Michael E. Porter, *America's Green Strategy*, *SCI. AM.*, Apr. 1991; E.J. URBANI & C.R. RUBIN, *TRANSNATIONAL ENVIRONMENTAL LAW AND ITS IMPACT ON CORPORATE BEHAVIOR* (1995).

46. See R. KOLLURU, *ENVIRONMENTAL STRATEGIES HANDBOOK* (1994).

47. The U.S. automobile industry lost an important market share percentage when Japanese automobile producers were able to respond more quickly to emissions restrictions under the Clean Air Act.

[S]trict environmental regulations can, by stimulating innovation, enhance competitiveness. Government policy can also contribute to competitiveness if it encourages innovation, by fostering sophisticated demand (e.g., through forward-looking regulation or government procurement that stresses new technologies). . . . Innovation offsets can not only lower the net cost of meeting environmental regulations but also lead to absolute advantages over firms in foreign countries not subject to similar regulations.⁴⁸

The innovations which, in some cases, have offsets that exceed the costs of compliance might include: new technologies which minimize the cost of compliance itself, improvements of the affected product, or enhancements of related processes.⁴⁹ For example, in response to EPA regulations, U.S. corporation Cummins Engines,⁵⁰ developed a low emissions diesel engine which allowed it to gain international market position. Porter and Van der Linde, however, caution that "standards should not be too far ahead, or too different in character, from those that are likely to apply to foreign competitors."⁵¹

DuPont is an interesting case in point. In the 1980s, DuPont controlled about fifty percent of the U.S. domestic market of CFCs. From an international perspective, DuPont was also a major producer, representing twenty-five percent of the world's total CFC production. In September 1987, The Montreal Protocol was signed by twenty-seven countries,⁵² to reduce the production and consumption of CFCs which had been linked to the degradation of the ozone layer. This treaty might have been seen as a menace for the CFC industry and DuPont. Instead, in March 1988, DuPont announced its decision to cease production of CFCs. In 1990, while the Montreal Protocol was renegotiated to include the banning of CFCs, DuPont was in the process of making enormous investments to develop alternative products. In fact, DuPont made twice the investment of the entire rest of the industry. Its strategy as industry leader, therefore, was to push regulators to force consumers toward substitute products and achieve a

48. Porter & van der Linde, *supra* note 2 at 14.

49. Porter explicitly links process offsets to "reduced regulatory, liability, and public relations exposure." *Id.* at 17. See also Peter M. Haas, *The Future of International Environmental Governance*, Mimeo, Oct. 1995 (reporting that sales of environmental goods and services could reach US\$600 billion by the end of this century). Haas also notes that European industries report that environmental protection efforts were taken in response to legal requirements. *Id.* at 36.

50. An Indiana based multinational corporation with sites in over 130 countries and with 93% of its goods sold outside of the United States.

51. *Id.* at 39.

52. By 1990, the number of signatories had grown to 80; by 1992, more than 100 signatories were involved and that number is expected to increase as various obligations under the agreement come into force. Ian H. Rowlands, *The Fourth Meeting of the Parties of the Montreal Protocol: Report and Reflection*, 35 *Env't. 25* (1993).

competitive advantage. Happily, at the same time a reduction in negative environmental impacts was achieved.⁵³

Another set of implications of theory on regulation goes to the obverse perspective: how society can *avoid regulatory capture* and promote a more green environmental management. Some observers conclude that to avoid capture, or more generally the degradation of strict norms, a supportive constituency is important. Active, vigilant groups can forestall change from an aggressive government regulatory policy to a "satisfying" or a self-regulating one.⁵⁴ Sabatier, for example, calls for the active dissemination of scientific information about the regulated activity and encouragement of citizen participation. The environmental constituency or stakeholders⁵⁵ (i.e., those in the larger society who support the activities of the green managed companies), can act to promote the standards which the green companies can achieve by: (1) themselves offering information in the rulemaking process; (2) through environmental education campaigns; and (3) through litigation aimed at forcing agencies to strictly implement the law. They can also promote the continued pro-environmental regulatory activity of the government. For the green managed company, it follows that providing environmental groups with information about its green agenda—how it is acting to set and meet higher standards—will maintain pressure on government for the stricter standards. The company can publicly disclose its record in a way which makes it the basis for comparisons by both those pushing for strong environmental regulations and the regulators themselves. Industry leaders might join with environmental groups and others in the public interest community to communicate with regulators, in ways aimed at promoting an increasingly sophisticated environmental science base for rulemaking.⁵⁶ Pressure from environmental groups on the green company is particularly important in view of critiques that some firms exploit the benefits of being perceived as leaders in environmental protection when, in fact, they make none other than cosmetic or public relations changes in their performances.

53. It is interesting to note, however, that DuPont has been characterized as among the most polluting companies in the United States, as measured by its listing on the priority list for Superfund. Faye Rice, *Who Scores Best on the Environment?*, FORTUNE, July 26, 1993, at 114. Fortune also reported, "DuPont successfully delayed the phase-out of CFCs for 15 years because it was the world's largest producer of the same destroyers. As the inevitable deadline approached, the company stepped up its promotion of substitute HCFC, which are less potent but still ozone depleting, instead of developing alternatives that do not harm the environment." *Id.* at 118. Furthermore, Greenpeace and other environmentalists have been highly critical of Dupont and The World Bank on this issue. See S. KRETZMANN, MONEY TO BURN: THE WORLD BANK, CHEMICAL COMPANIES AND OZONE DEPLETION.

54. Paul Sabatier, *Social Movements and Regulatory Agencies: Toward a More Adequate and Less Pessimistic Theory of 'Clientele Capture'*, 6 POL'Y SCI. 301 (1975).

55. See *infra* notes 90-93 and accompanying text.

56. See *infra* notes 91-100 and accompanying text.

C. *Green Management May Be a Means of Limiting Legal Liability for the Firm*

Potential liability of the firm under environmental law is a significant threat to future operations and a significant factor in business decision-making.⁵⁷ Well documented, high perceived risk of liability of the company for environmental degradation results from several phenomena in the regulatory environment of the firm.

1. *The Presence of Environmental "Watchdogs" in the Legal System*

These citizen activist groups and environmental non-governmental organizations have access to the courts through liberal *standing* rules which allow for judicial review of decisions by administrative agencies on environmental protection. Regulators are often perceived by the watchdogs to be overly responsive to the economic concerns of business, rather than sufficiently committed to environmental protection.⁵⁸ Examples include: (1) lawsuits initiated by environmentalists in the United States which successfully challenged the government's failure, in the early years of implementation of the Clean Air Act, to list lead as a criterion pollutant for which national ambient air quality standards would be set; (2) government's failure to list substances as hazardous air pollutants under the same law; (3) government's failure to interpret the Clean Air Act to prevent the significant deterioration of existing clean air regions; and (4) government's attempt to sell logging rights in habitat protected for endangered species.⁵⁹ In the European Union, while not classified as citizen suits, citizens file complaints to the European Commission, for failure to comply with directives on environmental impact assessment.⁶⁰

2. *Watchdog Activities Independent of Formal Legal Actions*

Activist groups may bring to the public or the regulator's attention alleged noncompliance, or non-environmentally friendly actions. This raises the possibility that others will seek redress from the firm.⁶¹ Green movements in the

57. See ENVIRONMENTAL LIABILITY AND REGULATION IN EUROPE (M. Brealy ed., 1993).

58. JOSEPH L. SAX, DEFENDING THE ENVIRONMENT: A STRATEGY FOR CITIZEN ACTION (1971).

59. See, e.g., *Seattle Audubon Society v. John Evans* (U.S. Forest Service) and *Washington Contract Loggers Assoc.*, 771 F.Supp. 1081 (USDC, W.D. 1991).

60. See *Report on the Application of the European Law in Member States*, 2 ELNI NEWS. 36 (1995) (concerning Directive 85/337/EEC of 6/85).

61. A June 1993 Securities and Exchange Commission staff accounting bulletin required firms to disclose information about their current and potential environmental liabilities. That mandate has not been followed by a number of firms: 36% responded in a survey that "there would be absolutely no mention whatsoever of the companies' environmental compliance activities. . ." PR NEWswire, Mar. 7, 1994.

United States and throughout Europe, especially Germany, have formalized this activism.⁶²

3. *The Evolution of Legal Liability Rules*

Several rules relevant to, and often based in, environmental law create greater risks of legal actions for business practices, of which some practices have historically been considered routine. Evolving "toxic torts" liability doctrines in the common law; joint and several liability, and vicarious liability are of particular concern.⁶³

a. Toxic Tort Liability

Among the significant movements in liability under common law doctrines (and related statutory law such as Superfund, The Comprehensive Environmental Response, Compensation and Liability Act [CERCLA]) is strict liability or liability without fault.⁶⁴ This doctrine makes a party liable for damages caused by a product or activity that is considered "ultra hazardous," or in more modern jurisprudence, "abnormally dangerous," independent of the care taken to prevent injury.⁶⁵ Although notions of fault are considered in some judicial treatment of even strict liability, other courts and commentators reject this position, moving beyond an "abnormally dangerous test."⁶⁶ Also relevant are doctrines which assign liability independent of prior knowledge of potential for harm or violation of some standard of care; liability based on market share of a product; and liability for failure to employ a leading edge process or strategy.

62. See generally R.J. DALTON, *THE GREEN RAINBOW: ENVIRONMENTAL GROUPS IN WESTERN EUROPE* (1994).

63. See generally G.W. BOSTON & M.S. MADDEN, *LAW OF ENVIRONMENTAL AND TOXIC TORTS* (1994). Damages may be recoverable even for the fear of some future harm (such as developing cancer) related to a business practice. *Id.* See generally *Baron v. Martin-Marietta Corp.*, 1994 WL 608531 (N.D. Cal.). On the advisability of Europe's moving toward the U.S. liability model, see Fülhr *supra* note 19. On the degree of incorporation of liability rules into international environmental law, see G. DOEKER & T. GEHRING, *LIABILITY FOR ENVIRONMENTAL DAMAGE, in THE EFFECTIVENESS OF INTERNATIONAL ENVIRONMENTAL AGREEMENTS* (D.H. Sand ed., 1992). On the concerns about the insufficiency of liability law in Europe, see Drupsteen & Gilhui, *supra* note 22.

64. 42 U.S.C. § 9601 et seq. (1995).

65. See generally BOSTON & MADDEN *supra* note 63.

66. See RESTATEMENT (SECOND) OF TORTS § 520 (1977) (stating that a balancing of factors is required to assess the appropriateness of an activity in a place where it is being undertaken); cf. *State Department of Environmental Protection v. Ventron Corp.*, 94 N.J. 473, 468 A.2d 150 (1983) (assessing a higher standard of care).

b. Joint and Several Liability

The doctrine of joint and several liability is critical to a firm's strategy. Under U.S. law it has become most relevant under Superfund.⁶⁷ In the environmental context the doctrine holds that even for a minor contribution to an environmental problem (i.e., transporting a small quantity of a regulated material to a hazardous waste site), a party may be liable for the full cost of clean up if the other parties cannot be found or are without resources.⁶⁸ The parties are referred to as "potentially responsible parties." The application of the doctrine can be draconian, and it for the time being is not applied in Western European law.⁶⁹

A relevant example of the strict application is the U.S. Federal Court of Appeal case of *United States v. Monsanto*.⁷⁰ Monsanto failed to convince a court that it should not be held liable under the Superfund law although it was only one of several contributors of waste to a site that it neither owned nor operated.⁷¹ Monsanto argued that it was not a primary contributor and should not be held liable. The court concluded that defendant generators like Monsanto had "the burden of disproving causation . . . (having) profited from the generation and inexpensive disposal of hazardous waste." Monsanto failed in its challenges to joint and several liability and to retroactive liability. The court's language rejecting the divisibility contention of the companies which had refused to settle the case suggests the wisdom of practices that fully track one's wastes:

Common sense counsels that a million gallons of certain substances could be mixed together without significant consequences, whereas a few pints of others improperly mixed could result in disastrous consequences. Under other circumstances proportionate volumes of hazardous substances may well be probative of contributory harm. In this case, how-

67. See *supra* note 61 and accompanying text. The popular name for the act, Superfund, derives from its goal of creating a fund to be used to clean up the nation's most seriously polluted waste dumps. It has been interpreted to create both strict and joint and several liability, and to allow recovery by the government of clean up actions for a liberal inventory of costs.

68. See 42 U.S.C. § 9607 (1995).

69. See Rock V. Grundman, *The Super Morass of Superfund*, BUS. & SOC'Y REV. 26 (1991). See also Charles J. Corbett & Luk N. Van Wassenhove, *The Green Fee: Internalizing and Operationalizing Environmental Issues*, CAL. MGMT. REV. 123 (1993); *Congress Drops a Superfund Overhaul*, N.Y. TIMES, Oct. 6, 1994, at A1; Melissa Healy, *Moves to Reform Superfund Killed by Squabbles*, L.A. TIMES, Oct. 6, 1994, at A23; *Chemicals Accident Prevention and Cleanup—The Seveso Directive, Superfund, and Liability Issues*, in SMITH & KROMAREK *supra* note 17; see generally M. BREALEY, ENVIRONMENTAL LIABILITIES AND REGULATION IN EUROPE (The Hague International Business Pub. Ltd.) (1993).

70. *United States v. Monsanto*, 858 F.2d 160 (4th Cir., 1988), *cert. denied*, 490 U.S. 1106 (1989).

71. *Id.* The facility owners had allowed over 7000 fifty-five gallon drums of chemical waste to be improperly disposed. *Id.* at 164.

ever, volume could not establish the effective contribution of each waste generator to the harm at the Bluff Road site.⁷²

c. Vicarious Liability

Vicarious liability is another potential vulnerability for the firm under environmental law.⁷³ This term refers generally to imposing liability on some actors for the actions of others, based solely on the relationship between the parties.⁷⁴ The situation can arise within a firm and also across firms.

Several theories find horizontal company liability, i.e. liability for actions of another firm with whom the subject company has business relations. They include liability based on instrumentality, agency, accomplicity, and conspiracy.

With vertical liability, an executive or other high level manager may be subject to prosecution for the actions (or failure to act) of lower level employees. An individual can be held liable if he or she had reason by corporate position to have the responsibility and authority to prevent or to promptly correct a violation and failed to do so. Liability can extend to those who fail to discover violations or fail to provide adequate supervision of activities which may be the sources of violations. *Scienter* (to act knowingly with a criminal intent) is not always required for prosecution under environmental law. Some courts have held that certain criminal environmental laws may be treated as strict liability laws such that the level of knowledge to be established need not include knowledge that a duty was breached or a standard or rule violated. The courts, however, are not in unanimity on this point. For example, other courts have held that while they cannot read a *scienter* requirement into law, they will apply a balancing test and will scrutinize whether a conviction in the absence of some type of *scienter* might violate the due process requirement of the U.S. Constitution.⁷⁵

72. *Id.* at 172-73.

73. See *Individual and Collective Responsibility Under Environmental Criminal Law, International Models for Criminal Liability of Enterprises*, INTERIM REP. FOR THE COMPARATIVE AND EMPIRICAL RESEARCH PROJECT (Max-Planck-Institute for Foreign and International Criminal Law, Freiburg Im Breisgau.) [hereinafter INTERIM REPORT]. In Belgium see the notion of the "breakfast executive" which is the individual "automatically liable when criminal acts arise out of the firms business activities." *Id.*

74. See *United States v. Park*, 421 U.S. 658 (1975); see also *Civil and Criminal Liability of Corporate Officers Under Federal Environmental Laws*, 20 ENV. RPTR. 337 (1989).

75. The Fifth and Fourteenth Amendments of the U.S. Constitution protect against the taking of life, liberty, or property without due process of law. U.S. CONST. amends. V & XIV. State law also creates liability rules for the firm. Not as a response solely to environmental crimes, but as a more general corporate control measure, California voters passed an initiative, Proposition 115, The Criminal Liability Act of 1989, commonly referred to as "Be a Manager: Go to Jail." CAL. PENAL CODE § 357 (West 1995). The Act makes corporate directors and other managers guilty for crimes if they have actual knowledge of serious concealed dangers which are matters of state regulation and they fail to warn those employees who are affected by the dangers and fail to inform the appropriate agency, the California Occupational Safety & Health Administration. *Id.* Penalties for violations are up to US\$1,000,000 for corporations and up to three years imprisonment and US\$25,000 in fines for individuals. *Id.* The knowledge requirement under the California act is awareness of

Even though this law appears to be rather harsh, the U.S. Supreme Court has said: "public policy may require that in prohibition or punishment for particular acts, it may be provided that he who shall do them shall do that at his peril and will not be heard to plead in defense good faith or ignorance . . . Legislation may, in particular instances be harsh, but . . . this court cannot set aside legislation because it is harsh."⁷⁶

d. *Corporate Criminal Liability*

A particular set of concerns involving liability of the firm arises from the fact that, in some of the world's jurisprudence, the corporation itself can be liable for wrongdoing.⁷⁷ While this is more often the case in common law countries, even in some civil law jurisdictions the aversion to corporate criminal liability has been changing. In 1983, for example, the Council of Europe created a committee to advise on the introduction of corporate criminal liability into member-state legislation. In 1988, a recommendation to consider the concept of criminal liability for corporations [Recommendation No. R(88)18] was received. France and the Netherlands have amended their laws to permit some use of the doctrine. Romania and the United Kingdom also have some provisions for corporate liability.⁷⁸ The interest is not in imprisoning a corporation's chief executive officer, but rather, in punishing the corporation.⁷⁹ The mainstream of the law

danger or possession of facts which would lead a reasonable person to believe there was danger. *Id.*

76. *Shevlin-Carpenter v. Minn.*, 218 U.S. 57, 70 (1910). *See also* *United States v. Weitzenhoff*, 51 F.3d 1523 (9th cir. 1993), *cert. denied, sub. nom. Mariani v. United States*, 115 S.Ct. 939 (1995); *United States v. Hopkins*, 53 F.3d 533 (2d cir. 1995); *United States v. Baytank*, 934 F.2d 599 (5th cir. 1991).

77. INTERIM REPORT, *supra* note 73.

78. Some countries (mostly civil law jurisdictions (Bruce Coleman, *Is Corporate Criminal Liability Really Necessary?* 29 SW. L.J. 908, 912 (1975)) presume that a corporation cannot be criminally liable because of the notion that a corporation can not do wrong: *societas delinquere non potest*. Mueller, "Mens Rea and the Corporation" *A Study of the Model Penal Code Position on Corporate Criminal Liability*, 19 U. OF PITTS. L. REV. 21, 28 (1957). *See* INTERIM REPORT, *supra* note 73. *But see* C. WELLS, *CORPORATIONS AND CRIMINAL RESPONSIBILITY* (1993). *See generally* Christopher Stone, *The Place of Enterprise Liability in the Control of Corporate Conduct*, 90 YALE L.J. 1 (1980).

79. Several ways of punishing the corporate entity exist. In the United States, for example, sanctions include: putting the corporation in the custody of a U.S. Marshall; requiring reforms of operations; forcing community service by the corporation and/or individuals; fining (including fines of a magnitude that would "remove all of the organization's net assets"); imposing substantial restitution; and providing notice to victims. *See* UNITED STATES SENTENCING COMMISSION, *GUIDELINES MANUAL* 357 (1991); *see also* William S. Lofquist, *Legislating Organizational Probation: State Capacity, Business Power, and Corporate Crime Control*, 27 L. & SOC'Y REV. 741 (1993). There is also a rising chorus of interest in use of probation against corporations. *See* John Collins Coffee, Jr., *Corporate Crime and Punishment: A Non-Chicago View of the Economics of Criminal Sanctions*, 17 AM. CRIM. L. REV. 419 (1980); Kenneth M. Koprowicz, *Corporate Criminal Liability for Workplace Hazards: A Viable Option for Enforcing Workplace Safety?* 52 BROOK. L. REV. 183 (1986). Combinations of sanctions are available under the U.S. Federal Sentencing Guidelines, including fines in addition to probation. Emmett H. Miller, *Federal Sentencing Guidelines for Organizational Defendants*, 46 VAND. L. REV. 198 (1993). For treatment in Australia, *see* John Braithwaite, *Penalties for White-Collar Crime*, in *COMPLEX COMMERCIAL FRAUD* (P.N. Grabosky ed., 1992).

transfers the doctrine of *respondeat superior* from the law of torts to the realm of criminal law. Under *respondeat superior*, a principal may be held liable for the acts and intent of an agent outside of an actual agency relationship, even if the agent acted adversely to the principal, when the principal cloaks the agent with ostensible authority.⁸⁰

As Leigh offers, "[i]n one view, corporate criminal liability serves the same function of vicarious liability; that is, the function of inducing management to police the observance of legislation on its part and on the part of its employees. In the alternative, corporate criminal liability may be viewed as a form of liability intended primarily to deter management itself from utilizing corporate forms and assets in the commission of offenses."⁸¹

Managers are concerned over the impact of this kind of liability. Scholars have asserted that executives are influenced by the disruption and negative reputational impact which occurs when corporations are sanctioned.⁸² Also worrisome to the firm is the alleged ease with which prosecutions can be undertaken under this theory of liability. It "usually is quite easy for prosecutors to establish the collective guilt of a corporation [and some have speculated that juries are more willing to convict an organization than an individual]."⁸³ Practical considerations sometimes overwhelm considerations of concern for the rights of the manager and lead to decisions to pursue the corporation because:

"[I]t may be less burdensome to investigate, charge, and convict the entity alone than to assign individual responsibility and prove individual guilt beyond a reasonable doubt. . . . When the government charges an organization . . . it may not have to demonstrate precisely who committed the offense, or the mental state of individual actors in the organizational hierarchy . . . prosecuting organizations alone does make convictions substantially easier to attain."⁸⁴

80. See Craig L. Griffin, *Corporate Scieneter Under the Securities Exchange Act of 1934*, 89 B.Y.U.L. REV. 1227 (1989). See also Lawrence Lederman, *Criminal Law, Perpetrator and Corporation: Rethinking a Complex Triangle*, 76 J. OF CRIM. L. & CRIMINOLOGY 285 (1985).

81. L.H. Leigh, *The Criminal Liability of Corporations and Other Groups*, 9 OTTAWA L. REV. 247 (1977).

82. Brent Fisse & John Braithwaite, *The Allocation of Responsibility for Corporate Crime: Individualism, Collectivism and Accountability*, 11 SIDNEY L. REV. 468 (1988). "[N]on-financial impacts—loss of corporate and individual prestige, declines in morale, distracting from getting on with the job, and humiliation in the witness box—were acutely felt." *Id.*

83. Stephen A. Saltzburg, *The Control of the Criminal Conduct of Organizations*, 71 B.U. L. REV. 421 (1991).

84. *Id.* at 425, 427. Furthermore, when the environmental law defendant is an organization, it can be compelled to deliver up information which can be used against it, a vulnerability which for individuals is protected against by the Fifth Amendment, which says in relevant part: "No person . . . shall be compelled in any criminal case to be witness against himself." U.S. CONST. amend. V. When organizations are prosecuted individuals can in fact lose the constitutional protection. Joseph F. DiMento, *Criminal Enforcement of Environmental Law*, 525 THE ANNALS OF THE AM. ACAD. OF POL. & SOC. SCI. 134 (1993).

Criminal procedural rules also facilitate prosecutions against the organizational entity. In the United States, for example, organizations have no privilege against self-incrimination. Thus, an organization must respond to a subpoena through some individual, even if the material subpoenaed will incriminate the organization and its employees.⁸⁵

4. Implications for Green Management

A core concern of these liability rules is to promote responsible management of activities which affect the environment.⁸⁶ This is a noble objective but one sometimes pursued in ways which hurt the generally compliant business entity.

First, at least in theory, green management can promote public sector goals while decreasing legal vulnerability of the firm. Most fundamentally, innovations in green management may substantively lessen the vulnerability which the firm experiences. New technologies, process changes, and management controls may facilitate environmental compliance and substantively obviate causes of action under environmental law. Porter cites the Tobyhannan Army Depot case as an example of how innovation can limit a firm's liability exposure.⁸⁷ Between 1985 and 1992, improvements in sandblasting, cleaning, plating and painting operations by the corporation reduced generation of hazardous waste by eighty-two percent.⁸⁸

Second, and more speculatively, green management may be the basis for legal conclusions under both statutory and common law (and later in the sentencing stages) that liability should be circumscribed and punishment limited. Green management may evoke sympathy in the courts for the firm subjected to liability rules that seem unfair when applied in the context of numerous "pro environment" actions of a green company.⁸⁹ Both judges and juries may be in

85. Saltzburg, *supra* note 83, at 428.

86. This is not always the complete rationale: public policy may be seeking the "deep pocket" to remedy a problem without having concluded that the corporation has acted in a particularly anti social way. Broad social policy sometimes dominates the liability logic. As stated in an important California case, the defendants were "better able to bear the costs of injury resulting from the manufacture of a defective product." *Sindell v. Abbott Laboratories*, 26 Cal. 3d 588, 163 Cal. Rptr. 132, 607 P.2d 924, 936 (1980), *cert. denied*, 449 U.S. 912 (1980).

87. See Porter & van der Linde, *supra* note 2, at 21.

88. *Id.* at 21-22. Almost US\$7 million in environmental liability costs, and over a half million dollars in disposal costs were avoided by the reduction. *Id.*

89. The synopsis of a fairly recent D.C. Circuit Superfund [CERCLA] case suggests some of this complexity. The court upheld the EPA's "limitation of Applicable or Relevant and Appropriate Requirements (ARARs) to generally applicable substantive requirements; determination that SDWA Maximum Contaminant Level Goals (MCLGs) that are set at zero are not ARARs; determination that cleanups are cost-effective when costs are proportional to overall effectiveness; classification of permanence as one of five primary balancing criteria; cancer risk range; promulgation of a de minimis exception from obtaining permits for remedial actions. The court rejected as unripe challenges to . . . EPA's preference for MCLs or MCLGs—over FWPCA water quality criteria—as ARARs for ground water cleanup." 23 ENVTL. L. REP. (1993). Under federal law in the

fluenced. Good green management may make enforcers less eager to draconianly apply doctrines of strict liability or joint and several liability. Green management may be a counter influence to the forces seeking to punish top management for the actions of lower level employees. It may also make government less able to do so because the company sets in place both roles and processes which indicate a commitment to environmental protection and compliance with law. From a broader perspective, green management activities may translate to a political climate opposed to mandating further rules and standards.

Third, green management may lead to a recruitment of environmental watchdogs. Rather than seeking legal action against the green firm, activist groups may use the firm's programs and policies as models for the industry in general. Ideally, the result would go beyond environmental groups choosing to pursue other defendants and would lead to their actively promoting the firm's green agenda.⁹⁰

How can the firm specifically limit its vulnerability and risks? Actions that the firm may take are legion. They include: (1) appointments of high level directors in charge of environmental compliance whose duties include reporting directly to the chief executive officer, working with regulatory agencies, and monitoring regulations; (2) creation of internal audit systems to prevent—or at least decrease the incidence of environmental violations; (3) installation of information systems that assure that instances of non compliance are communicated to high level management; and (4) signing on to environmental codes of conduct. An example is the Ceres Principles in the United States, once known as the Valdez Principles (with parallels elsewhere including the Japan-based Valdez Society). These principles include a commitment to, *inter alia*, waste reduction; the use of renewable resources if possible; wise use of energy; the appointment of environmental managers and directors; and protection of company whistleblowers against retaliation.⁹¹ Other strategies include the appointment of environmentalists to the Board of Directors and designation of a share of the firm's profits to environmental or other public interest groups. Patagonia is an interesting example.⁹² Patagonia is a company in Ventura, California, which produces recreational clothing. The firm dedicates 1.1 percent of its sales revenue to environmental organizations, distributing small amounts to more than two

United States, the nature of the penalty imposed for environmental violations is explicitly tied to consideration of the firm's attempts to remain in compliance with environmental laws and to other subjective considerations. See The Resource Conservation and Recovery Act, 42 U.S.C. § 1002 (1995).

90. See *infra* notes 102-26 and accompanying text (discussing the influence of support groups on regulatory agencies).

91. See Michael Parrish, *GM Signs on to Environmental Code of Conduct*, L.A. TIMES, Feb. 4, 1994, at D1.

92. See Peter Carlin, *Pure Profit*, L.A. TIMES, (MAG.), Feb. 5, 1995, at 13 (profiling Patagonia), M. WINN, CORPORATE LEADERSHIP AND POLICIES FOR THE NATURAL ENVIRONMENT (mimeograph, Aug. 30, 1994) (discussing Patagonia's strategy).

hundred groups. Patagonia recently aligned itself with one important segment of the environmental community by sponsoring ads in *The New York Times* opposing the U.S. ratification of the General Agreement on Tariffs and Trades (GATT), arguing that its implementation could threaten implementation of domestic environmental and consumer safety law.⁹³

At a less formal level, the firm may take actions which generally communicate a commitment to environmental protection. It can develop and lead the field in entering green labeling campaigns; it can foster programs of recycling which exceed government rules; it can sponsor environmental education and activities of non governmental organizations and not for profit environmental groups; and it can go beyond the Ceres principles.

Dow Chemical Company provides an interesting example of the elements of developing a green strategy. As *Fortune* magazine summarized: "Dow Chemical, a company whose name was once synonymous with napalm, Agent Orange, and fearsome opposition to what former chairman Paul Orefice called 'nitpicking, ridiculous regulations,' is now among America's top ten environmental champions."⁹⁴ Dow took several actions to change its image including: (1) creating an Environmental Advisory Council which meets with senior managers and board members four times a year at the company's corporate headquarters; (2) providing incentives, including salary increases and bonuses, to employees who assist in reaching environmental objectives; (3) adding an environmental criterion to each employee's appraisal form; (4) placing its senior environmental official on its Board of Directors; (5) formally terminating environmentally questionable practices such as deep well injection of hazardous wastes; and (6) developing a formal hazardous and solid waste and emissions reduction program.⁹⁵ International examples include Ciba Geisly which is a multinational corporation based in Switzerland.⁹⁶

The firm can also, *post facto*, attempt to limit its liability. Special settlement agreements may be valuable. Recently, EPA has entered into a number of these in its enforcement activities. Through the program, whose actions are referred to as Supplemental Environmental Projects (SEPs), companies volunteer to take actions not otherwise legally required. In exchange, the penalties owed for violations are reduced. "Generally they must pay \$2.50 in SEP expenditures for every \$1 in penalty reduction that they are granted. . . . The largest portion of SEPs involves companies making direct expenditures for pollution reduction or prevention . . . other forms of SEPs include environmental restoration projects

93. As a Business Patagonia Stands to Gain from GATT; So Why Do We Say 'No Thanks'?, N.Y. TIMES, Nov. 15, 1994, at A15.

94. Rice, *supra* note 53

95. *Id.*

96. See WALDEMAR HOPENBECK, THE GREEN MANAGEMENT REVOLUTION: LESSONS IN ENVIRONMENTAL EXCELLENCE (1993).

... environmental audits, public awareness projects. . . ."⁹⁷ Some corporate lawyers are also advocating an internal environmental audit privilege, shielding information collected in self regulation from disclosure, and calling for a policy of dismissing all penalties including criminal penalties against companies who voluntarily report violations which their audits disclose.⁹⁸ Others would reduce fines and otherwise mitigate punishment if the firm efficiently self enforces regulatory law.⁹⁹ The strict Federal Sentencing Guidelines include fine mitigation for corporations that effectively monitor and promptly report violations to the government.¹⁰⁰

D. Green Management May Be a General Negotiating Tool in Interactions with Regulatory Agencies

More generally, green management may assist the firm in making more cooperative its relationships with public regulators independent of instrumental concern with specific proposed regulations or enforcement. Rather than opposing the introduction of new environmental standards and rules, the active firm may help create the climate which generates the rules. It may adopt a *preventative strategy* and work to influence the agency response to the regulated industry position. Porter and others have claimed that, worldwide, too much effort is spent in fighting the regulatory process itself, rather than having government-industry cooperation on the substantive objectives of environmental law.¹⁰¹ Superfund has rapidly become the classic example, but Porter and others assert that the problem is more general throughout the industrialized world and "evidence if it were available, would show that a substantial fraction of spending on the environment, and of the revenues of environmental products and services firms, is consumed in *the struggle itself*, not in cleaning up the environment" with results which are immensely counterproductive.¹⁰²

97. Lewis, *Voluntary Agreements for Environmental Protection*, Remarks at the Annual Meeting of the Environmental Law Network International, Strasbourg, France (Oct. 15, 1995). See also 59 Fed. Reg. 59,921 (1994) (publishing the EPA's final rule under its Early Reductions Program implementing § 112(i)(5) of the Clean Air Act). The rule offers an extension of a compliance date to sources that achieve substantial early reductions of hazardous air pollutant emissions. *Id.* See also Massachusetts, where the Commission may waive permits in noted circumstances (or expedite the permitting process) if a zero-discharge approach is adopted. *Id.* The Commissioner's policy is that the company will face "a careful review" if it wants to continue discharges. See Porter & van der Linde, *supra* note 2, at 42.

98. Lewis, *supra* note 97.

99. Jennifer Arlen, *The Potentially Perverse Effects of Corporate Criminal Liability*, 13 J. OF LEGAL STUD. 833 (June 1994).

100. UNITED STATES SENTENCING COMMISSION, GUIDELINES MANUAL, § 3E1.1 (Nov. 1991).

101. Porter and van der Linde, *supra* note 2; Michael Porter, *THE COMPETITIVE ADVANTAGE OF NATIONS* (1990).

102. "Firms will adopt short term band-aids instead of fundamental solutions. Progress will be slow. Both sides will battle over every inch of territory." Porter & van der Linde, *supra* note 2. These authors and many others mention the 1992 Rand Institute of Civil Justice study which found that 88% of the money which

The firm can act in many ways, both direct and some subtle, to positively influence the regulator. Among the former tactics, the firm can actively engage in collaborative rulemaking with the agency—referred to in the United States as *negotiated rulemaking*. Negotiated rulemaking is one of several strategies which fall under the general rubric of alternative dispute resolution.¹⁰³ Negotiated Rulemaking or “Reg-Neg” brings together interested parties early in the rulemaking process¹⁰⁴ and provides them with an opportunity to create the rules which will affect them. The objective is to foster a consensual approach to, for example, the setting of a standard. Reg-Neg participants may also translate a tentative agreement into a consensus document (a summary of findings and issues which all interested parties accept and which the rulemaking agency can utilize as a basis for its conclusions). The EPA has made use of reg-neg on a small number of occasions, including the creation of rules regarding the Federal Clean Air Act motor vehicle emissions non-conformance penalties, standards for wood stoves, and standards for farmworker protection against the effects of pesticides.¹⁰⁵

Negotiation with the regulatory agency can lessen the uncertainty which industry experiences in the regulatory process.¹⁰⁶ Also, since agencies often have access to the leading information in a sector, the firm can benefit by tapping into this knowledge of innovation ongoing elsewhere. In the United States, limitations

insurers paid on Superfund claims between 1986 and 1989 was used to pay administrative and legal costs. *Id.* The actual clean up cost percentage was 12% of the payout. *Id.*

103. See generally G. BINGHAM, *RESOLVING ENVIRONMENTAL DISPUTES: A DECADE OF EXPERIENCE* (1985) (discussing ADR); L. SUSSKIND & J. CRUIKSHANK, *BREAKING THE IMPASSE: CONSENSUAL APPROACHES TO RESOLVING PUBLIC DISPUTES* (1987); Susskind & McMahon, *The Theory and Practice of Negotiated Rulemaking*, 3 YALE J. OF REG. 133 (1985); GOLDBERG, ET AL., *DISPUTE RESOLUTION: NEGOTIATION, MEDIATION, AND OTHER PROCESSES* (1992); R. FISHER & W. URY, *GETTING TO YES* (1981); CPR, *MODEL ADR PROCEDURES, MEDIATION OF BUSINESS DISPUTES* (1991); KUBEY, *YOU DON'T ALWAYS NEED A LAWYER: HOW TO RESOLVE YOUR LEGAL DISPUTES WITHOUT COSTLY LITIGATION* (1991); MOORE, *THE MEDIATION PROCESS: PRACTICAL STRATEGIES FOR RESOLVING CONFLICT* (1986); SINGER, *SETTLING DISPUTES: CONFLICT RESOLUTION IN BUSINESS, FAMILIES, AND THE LEGAL SYSTEM* (1990). The Federal government has taken a number of steps adopting ADR. See The Administrative Dispute Resolution Act of 1990, 59 Fed. Reg. 59715 (1994) (discussing proposed rules on adopting ADR by the Federal Energy Regulatory Commission); Perritt, *Negotiated Rulemaking in Practice*, 5 J. OF POL'Y ANALYSIS & MGMT. 1 (1986) (examining negotiated rulemaking); D. PRITZKER & D.S. DALTON, *NEGOTIATED RULEMAKING SOURCEBOOK* (1990).

104. See *supra* notes 9-16 and accompanying text (discussing the traditional process). See also *Regulatory Reform Initiatives: Hearings Before the Senate Committee on Governmental Affairs, Regulation Through Negotiation, The Negotiated Rulemaking Act 1989*, 100th Cong., 2d Sess.; ROBERT PAEHLKE & DOUGLAS TORGERSON, *MANAGING LEVIATHAN: ENVIRONMENTAL POLITICS AND THE ADMINISTRATIVE STATE* (1990) (discussing the situation of cooperative rulemaking in Canada and in Western Europe).

105. Negotiation in the regulatory process is relevant to several activities. Advocates promote negotiating environmental agreements ranging from the details of permits to the terms of an environmental audit or compliance review.

106. This makes for an interesting dynamic and may suggest a strategic choice for a regulated firm: while uncertainty is an objective obstacle to fostering compliance by industry, *alleged uncertainty* is also a tool that the firm may use in criticizing regulatory agencies. Negotiated rulemaking, objectively superior in generating acceptable standards, can also take away one of the firm's arguments for less regulation.

on this exchange exist because some information may be proprietary, but this restraint may not apply to the regulatory agency's knowledge of innovations in other countries—including those where green activity is in the forefront such as Germany and Japan.¹⁰⁷ Yet another benefit may be identifying markets for green products.

The firm can engage in *collaborative research* with government. The Health Effects Research Institute, created and funded by both the U.S. federal government and the automotive industry to do regulatory relevant research on the health effects of automotive pollutants, was an early example in the United States.¹⁰⁸ While not exactly duplicated, this type of opportunity to influence the regulatory research agenda is available in many parts of the world, most notably in Europe.¹⁰⁹

The firm can *offer its environmental innovations* to the public sector for possible use. These may be process innovations which have applicability in other sectors; new technologies which the firm can make known to agencies seeking information on best available equipment; or new applications of existing products which may have positive environmental effects in arenas related to the missions of regulatory agencies.¹¹⁰ The case of Arm & Hammer nicely demonstrates this latter possibility. At the end of the 1980s, the company launched again into the market of bicarbonate soda, focusing on the environmentally benign characteristics of its products. Working closely with environmental groups and also supported by public agencies, the company discovered new possibilities for its product for house cleaning—as a substitute for more toxic materials. The company decided to create “environmental centers” in supermarkets. These were conceptualized in collaboration with environmental groups: the aim was to educate consumers about the environmentally favorable attributes of the new products. In a short time, the name Arm & Hammer was associated with not only the benefits of these new products, but also with a concrete response to solving

107. Fletcher & Sobin, *The International Market for Environmental Goods and Services: The United States, Germany, and Japan Export the Most*, EPA J., Fall 1994, at 35; see Y. Moore, *Breakthrough in Plastics Recovery: Vinyl Cycle @ Units are Operating on Three Continents*, EPA J., Fall 1994, at 18.

108. See DiMento, *supra* note 25; Stone, *No Meeting of the Minds on Asbestos*, 254 SCI. 928 (1991) (describing polarization of analysis to the point that researchers from one sector do not participate any longer at meetings of other sectors); Blum, *All The Best?* 12 NAT'L L. J. 2 (1990) (describing criticisms of Archibald Cox's choices for a panel on asbestos health effects).

109. See, e.g., GSF - Research Center for Environment and Health, WWW INTERNET (copy on file with *The Transnational Lawyer*).

110. The green strategy can help government regulators to comply with mandates of which *they* are the subjects, such as under RCRA to develop an affirmative procurement program to purchase environmentally friendly items. 42 U.S.C. §§ 6901-6991K (1995).

environmental problems. Shortly after the creation of the environmental centers, all Arm & Hammer products experienced a rise in sales.¹¹¹

The firm may even avoid the regulatory process through appropriate strategic behavior. For example, a company may innovate in order to avoid an approval process which is associated with a strict compliance standard, one which may not be cost-effective from a societal point of view. Porter and van der Linde provide the following example: faced with new regulations that would force many solvent users in paper, plastic, and metal coatings to reduce their emissions ninety-percent by 1995, 3M found it beneficial "to go all the way and attempt to avoid the use of solvents altogether and coat products with safer, water-based solutions. Among the benefits were not only early mover advantages in product development over competitors (who will switch only in 1995) but also the reduced cost of not having to go through the approval process for solvent-based coatings, thus shortening the time to get new products to market."¹¹²

The firm can take the lead in developing voluntary accords—again ahead of the regulatory process. A voluntary accord is a contract (or more informally an agreement) between government and the firm which establishes a set of activities, not legally required, to reach a common objective.¹¹³ Voluntary accords may assist in the general relationship with the environmental regulator and avoid command and control or other regulatory action perceived to be more costly. The U.S.' Green Lights program is one example. Since its inception in 1991, the program has formed close to 1000 corporate partnerships for the installation of new lighting systems in 3.3 billion square feet of facility space over a five year period, perhaps obviating additional energy based rules.¹¹⁴

111. Its detergent moved from fifth to second place in market share (from 6% to 9%) in only ten months—without any additional expenditure on publicity. Hall & Ingersoll, *Leading the Charge: Competitive Advantage from Solution-Oriented Strategies*, Strategic Environmental Associates, in THE GREENING OF INDUSTRY, Boston, Massachusetts (1993). By 1970, Anheuser-Busch, one of the largest producers of beer in the world, had distributed to all of its subsidiaries a publication on how to work together to address the problem of solid waste. Lawrence W. Long, *Anheuser-Busch's: A Pledge and a Promise: Total Employee Involvement*, TOTAL QUALITY ENVTL. MGMT., Winter 1993. In 1990, a code was adopted and distributed to the firm's dependents and subsidiaries; the company declared: "every choice which we make regarding the land, the air and the water around us is done with the objective of preserving them for future generations." *Id.* Moreover, the company specifically committed to: 1) reduce solid waste destined for waste sites by 40% in 1990; 2) reduce the amount of water used for each barrel of beer by a specified percentage; and 3) reduce by 20%, by the end of the decade, the amount of energy expended in production. *Id.* The objectives were defined with the full support of management and encouraged by active participation of employees and family members of employees. *Id.* Results were very positive, the volume of waste destined for waste dumps, for example, dropped 37% in one of Anheuser Busch's plants. *Id.*

112. Porter & van der Linde, *supra* note 2, at 19.

113. Lewis, *supra* note 97.

114. U.S. EPA Green Lights Program, U.S. Environmental Protection Agency, Washington, D.C., GREEN LIGHTS UPDATE (July 1993). See Claussen, *EPA's Green Programs*, EPA J., Sept.-Oct. 1992, at 20; see also EPA, ENERGY STAR PROGRAM (encouraging the creation of technology for catmapping computers and printers); Fitzgerald, *EPA Plants Seed for Green PC Project*, COMPUTER WORLD, June 1993, at 24.

The firm can *informally offer information* to the regulatory agency, maintaining contact with agency employees and serving generally as a good citizen in the regulatory environment. Information may be provided at professional meetings, through e-mail interactions, correspondence, mailing lists—all the usual channels used among colleagues. Communications may address new technologies, ideas about regulatory strategies, reports on work in other nations, and costs associated with alternative regimes for achieving a given amount of environmental protection. The latter contribution is not totally altruistic.¹¹⁵ As Kagan succinctly summarizes: “Regulation is a political process.”¹¹⁶ Controls on the regulators themselves come from many sources, one of which is legislators’ concern about objectives of public policy other than environmental quality, including international competitiveness; so some policy makers may welcome information about costs.¹¹⁷

Whether formal or informal, negotiations may be important because the pre-existing relationship with the regulator may produce results that are counterproductive from the perspectives of both the firm and society. Porter and van der Linde offer an example:

“Liability exposure and inflexibility in enforcement, among other things, contribute to the problem. For example, a company that achieves ninety-five percent of target emissions reduction via innovation while also registering substantial offsetting cost reductions will be *out of compliance* and face liability, while adopting a safe but expensive secondary treatment approach is rewarded.”¹¹⁸

115. F. Clifford, *Strategy Unclear as AQMD Drops Anti-Smog Plan*, L.A. TIMES, Jan. 13, 1996, at A1. A number of commentators have noted the widely discrepant costs associated with different regulatory approaches for reaching a given environmental standard. *Id.* Some have found that strategies driven by rules imposed by the agency are much more costly than those which leave the decision on how to achieve standards to the company. *Id.* It should be noted, however, that considerable criticism is again mounting about strategies which leave greater discretion with the firm; critics argue that the same standards in fact will not be achieved. *Id.* For example, under pollution trading regimes such as RECLAIM in Southern California (SCAQMD) “hot spots” of air pollution may be created within a “bubble” whose overall standard is legally compliant. *Id.*

Not all observers view attempts by the firm to impress the regulatory agency by reference to its green management strategies as good for public policy. As Lewis has noted:

Many corporations are citing their voluntary actions, however weak they may be, to argue against new legislation and regulation. At the same time that Sun Corporation says it is a slave of markets, its lobbyists will lobby against new legislation that might cut into those markets. Sun official Grabowski noted that among the benefits to Sun from enforcing the principles, would be the added credibility they gain from lobbying Congress on environmental legislation they find too costly.

Lewis, *supra* note 97, at 10.

116. Kagan, *supra* note 35, at 399.

117. “[R]egulators demanded less stringent emission limits for sulfur dioxide emissions from copper smelters in the American southwest than from electrical power plants. [T]he smelters faced foreign competition and would probably close if they faced high [pollution control] costs.” Kagan, *supra* note 35, at 398 (citing Nichols).

118. See Porter & van der Linde, *supra* note 2, at 36.

By informing the regulators of its special circumstances, the firm may help meet the regulators' objectives and itself save considerable costs. A coordinated result may even increase the probability of long term environmental improvements.

An extension of employing green management as a vehicle for negotiations with regulatory agencies is for the firm to make the green strategy *an organizing principle* for regulation, as has been suggested for Western Europe and Australia.¹¹⁹ This idea is yet to be developed in the United States. It would involve recognition by regulators of the benefits of management according to green principles and it would seek regulations respectful of a private sector driven choice of pollution control and environmental protection strategies.

In its interactions with the regulator, the firm can also make use of "stakeholders" or support groups. These are groups, both in the larger environment¹²⁰ and within the firm itself,¹²¹ which monitor the environmental performance of the firm and are a constant actual or potential influence on regulatory politics. Kagan has noted that "[t]he vigilance and capacity of potential complainants and advocacy organizations appear to be the most powerful influences on regulatory agency enforcement style."¹²² This dynamic extends as well to regulatory orientation. Approaches to cultivating positive relations with these groups are legion. In addition to those mentioned above (such as involving environmentalists on company boards and subsidizing environmental group activities), industry can: keep the groups consistently apprised of innovations which are protective of environmental values; solicit advisory opinions from the stakeholders on responses to existing and proposed laws; and seek out evaluations of new product lines and general environmental policy.¹²³ In Canada, when Loblaw's was considering the introduction of two new product lines, it called on the assistance of stakeholders. To define the requirements of the product lines (G.R.E.E.N. and President's Choice), the company sought collaboration with environmental groups including Greenpeace and Pollution Probe, which assisted in defining product characteristics. This stakeholder network also helped Loblaw's in its efforts to fashion Canada's green labeling program. Proctor and Gamble offers an interesting case in the United States. In 1984, the company initiated a plan to address the solid waste problem associated with disposal of paper diapers.

119. SASSOON & SASSOON, *supra* note 1 (offering some idea of this overreaching suggestion). Less comprehensive but similar notions are found in the work of the self regulating firm. See John Braithwaite, *Enforced Self-Regulation: A New Strategy for Corporate Crime Control*, 80 MICH. L. REV. 1466 (1982).

120. See JOSEPH F. DIMENTO, *ENVIRONMENTAL LAW AND AMERICAN BUSINESS* (1986).

121. Kagan describes how support for green management and for strong public regulation of the environment can come from within the firm, independent of top management: "[c]orporate environmental engineers, safety experts, affirmative action officers, nurses, and auditors constitute a shadow regulatory bureaucracy, often supportive of the regulatory regimes to which they owe their livelihood. . . ." Kagan, *supra* note 35 at 397.

122. *Id.* at 397.

123. See Carlson & Moulden, *Green is Gold*, HARPER BUS. (1991).

In 1985 the firm introduced Pampers, a new type of diaper which is one half of the breadth of the prior diaper. Later, in 1989, the firm introduced a system to drastically reduce waste through composting which reduces the volume of material destined for the disposal site by a full eighty percent. A test of the composting plan confirmed the validity of the idea behind the system. However, its implementation was stymied. In all of the firm's marketing territories, only ten composting plants existed with another 150 in various phases of development.¹²⁴ But the story did not end with failure of an aggressive green strategy. Rather, the firm created a twenty million dollar fund to help local entities study the problem of solid waste and undertake research on composting. While this courting of stakeholders did not stop them from pushing regulators to adopt new taxes for throw away diapers, it did head off additional requirements contrary to the firm's economic interests.

VII. SUMMARY AND CONCLUSIONS: BEYOND FLOWERY CORPORATE HAPPY-TALK¹²⁵

Green Management favors environmental protection, favors openness in sharing information within and outside the firm about environmental impacts and innovations, seeks to involve environmental stakeholders in decision-making, seeks to place the environmental perspective high on the organization chart, seeks to outpace competitors in seeking environmentally benign processes and products, and seeks to recognize strict compliance as a floor rather than a ceiling for a company's environmental performance. In theory, green strategies possess characteristics which may be used to promote better relations with regulators. There are strong suggestions that the green approach can assist the firm in realizing better treatment by government regulators and reducing exposure to legal liability.

However, research on green management is embryonic and mainly case specific. Thus, these strategies are not yet sufficiently analyzed to suggest with confidence that they are, invariably, beneficial for the company or for the environment. Results may not always be good for mother earth *and* for market share *and* for model rule. They may favor one of these outcomes at the expense of the others. Results may also depend on how the regulator evaluates the firm's environmental commitment.¹²⁶ They may be very sector specific in the short-to mid-run, and may turn on continuities in platform and ideology across political

124. *Proctor & Gamble*, ADVERTISING AGE, Jan. 29, 1991, available in PTS-MARS Database.

125. *United Paperworkers Int'l Union v. Int'l Paper Co.*, 985 F.2d 1190 (1993). International Paper was "chided by a U.S. district court judge for using 'flowery corporate happy-talk' to inaccurately portray its environmental record to shareholders." *Id.*; see Rice, *supra* note 53, at 114.

126. *Id.*

administrations. Besides, better relations with government may be evolving independent of firm strategy, the result of other societal forces.

The examples in this article and in the literature in general represent a minuscule set of interactions between business and regulators. Many companies in the environmental sector remain highly skeptical about greater interactions with government. Small firms especially question entering accords with public agencies, still viewing state and federal government as intruders into their business policies. Others may be concerned that touting an environmental strategy will only focus regulatory attention on the firm—that a failure to win over the regulatory agency may result in being pulled deeper into the regulatory mode of government environmental policy, including into the confusing world of governmental regulation of green advertising claims.¹²⁷ Or, more directly, effective green management may simply promote more frequent and easier enforcement of environmental law against the very firms trying to be good corporate citizens.¹²⁸ Furthermore, many of the suggestions reflected in green strategies take a mid- to long-term perspective on benefits. A short-term orientation toward costs may be quite understandable, particularly in periods of economic recession and par-

127. See Robert J. Gillespie, *Pitfalls and Opportunities for Environmental Marketers*, 13 J. OF BUS. STRATEGY 14 (1992) (describing state and federal regulation of these claims and the National Association of Attorneys General Green Reports I and II on efforts to develop national standards for environmental advertising); Davis, *Federal and State Regulation of Environmental Marketing: A Manager's Guide*, 59 SAM ADVANCED MGMT. J. 36 (Summer 1994); see also *Court Upholds Law Restricting 'Green' Labeling*, L.A. TIMES, Nov. 19, 1994 (describing a U.S. Court of Appeals opinion upholding against constitutional challenges California's law regulating green marketing claims). The law which makes it unlawful to represent products as environmentally friendly unless they meet state standards. See CAL. BUS. & PROF. CODE § 17508.5 (West 1995), upheld in *Association of National Advertisers, Inc. v. Lundgren*, No. 93-15644 (9th Cir. 1994) Daily J. D.A.R. 16436, Nov. 18, 1994. On the pitfalls of being too visibly green, see, e.g., *Body Shop's Green Image Is Attacked*, N.Y. TIMES, Sept. 2, 1994 (describing the controversy surrounding an article in *Business Ethics* criticizing the purportedly socially concerned company's actual performance). "The dispute . . . may also prove to be a cautionary tale for companies that project a righteous image . . . regulatory authorities are peeling back facades to see whether their operations justify their claims to 'green' or socially enlightened business practices." *Id.* See also Parrish, *supra* note 92 (indicating that critics of GMs signing of the Ceres Principles questioned the company's "motives" linking the action to GMs attempts to lobby against higher fuel efficiency standards and zero emission vehicles). The concern with being overly boastful about a green strategy was underscored in the McDonald's case. McDonald's, in a partnership with the Environmental Defense Fund (EDF), created a model program of waste reduction. Among McDonald's commitments were to purchase recycled materials for renovation and construction of new restaurants and to purchase millions of dollars of recycled paper products. But McDonald's as a corporation has been loathe to advertise its environmental strategy. An EDF representative explained why, in response to a question at a Senate hearing on green purchasing practices:

DR. DENISON: I think part of it represents the moving target nature right now of the whole area of environmental claims. It is unclear what can be said that is not going to be seen as either simply marketing hype or deceptive."

Buying 'Green': Federal Purchasing Practices and the Environment, Hearing Before the Senate Subcommittee on Oversight of Government Management of the Committee on Governmental Affairs 50, Nov. 8, 1991.

128. Arlen, *supra* note 100 (auditing may produce information that must be reported to EPA "(t)hereby subjecting (the firm) to increased risk of an enforcement action and possibly criminal prosecution" (citations omitted)).

ticularly when viewed from the perspective of the firm, rather than the industry in total or of an ambiguously defined societal good.

Despite all these caveats, the evidence is mounting that companies strongly directed toward environmental protection will not only achieve results of benefit to the natural environment but also will encounter an increasingly benign regulatory environment. At the same time, convincing theory suggests these firms should also see improvements in their economic indicators.

Evidence is also mounting that the firm which ignores the societal trend of increased environmental concern transnationally may do so at its business peril. Thus some lessons on strategy should be ever clearer to practitioners of law in the international context and to business people whom they counsel. The regulatory environment of business is rapidly changing and, with few exceptions, changes are aimed at further pushes on business to protect the environment. Whether those be in the form of stricter liability rules or inducement toward voluntary changes such as through the ISO 14000 Standards, the intended outcome is the same: to interject societal conclusions about good environmental management into the firm's decision-making and practices. The advantages of this movement can be considerable to the firm which keeps abreast of proposed influences and tries to shape them toward its own perceptions of effective management, good public policy, and profit promotion.

On the positive side, the vigilant firm will be able to influence the nature of standards which will affect it, molding the rules of the game and also mitigating the negative effects of violation of those rules. Through environmentally sophisticated counsel who work in the regulatory environment, the firm can limit its risk exposure and protect itself from overly zealous, and perhaps not fully justified, rules and policies. On the negative side, the firm that does not understand the movement toward green management—at the national level and in the arena of international organizations—may find itself faced with rules it does not understand and cannot follow, competition it had not anticipated, and difficult relationships with government.

**INTRODUCTION OF "GREEN" PRODUCTS
AS A PERCENTAGE OF THE TOTAL NUMBER OF PRODUCTS INTRODUCED
BY COUNTRY**

	1986	1987	1988	1989	1990	1991
Canada	2.0	0.6	1.1	4.6	16.4	33.9
Australia	0.3	-	2.9	3.1	12.3	5.1
Europe *	0.7	0.9	0.7	2.4	5.7	3.2
Japan	0.2	0.7	1.6	1.8	1.5	0.8
United Kingdom	0.9	2.4	4.0	8.3	10.8	7.2
South Africa	0.5	-	1.1	4.4	6.1	6.1
United States	1.1	2.0	2.8	4.5	11.4	13.4
* Denmark, France, Germany, Italy Source: Marketing Intelligence Service Ltd., Naples, NY, 1992						

