

The New Environmental Stewardship

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Heads of corporations have long been fluent in the languages of competition, finance, shareholder value, and – more recently – manufacturing strategies and global information networks. But for many, environmental management was an issue to be looked after elsewhere in the organization.

No longer. The risks are simply too high. An environmental conscience, shared by corporate customers, suppliers, neighbors, and employees around the world, is growing in response to potential – and real – concerns. These include:

- Threats to the survival of the Earth's resources as we know them
- Concerns for the health and safety of corporate employees, neighbors, and the general public
- Fears that an otherwise healthy company could be devastated overnight by an environmental crisis

Consequently, environmental stewardship is one of the largest management challenges of the 1990s – and many companies are ill-prepared to meet it. All corporate constituencies will be watching closely to see how companies handle their environmental responsibilities. To reduce risks to themselves and their companies, senior executives have no choice but to become knowledgeable and visible environmental leaders – in their corporations, their industries, and their communities. Some chairmen and CEOs have already assumed this role. Others are just beginning. Moreover, every employee will have to understand his or her role in making the corporate environmental program successful.

In this article, we examine driving forces motivating change in environmental management, the response of environmentally aware corporations in managing risk better, and the strategic implications for those companies that are successful at it.

Regulatory Directions

Only a few years ago, the principal goals of corporate environmental management were – often quite literally – to „put out fires,“ to contain the costs of pollution control equipment, and to operate their manufacturing plants so that the amount of pollutants dispersed in the air and water was within the limits negotiated with the government. Environmental legislation in most industrial nations was in its infancy; in developing nations it was nonexistent.

All that is behind us. Public and government response to pollution, environmental crises, and potential health risks has generated a multitude of government regulations around the world. These laws place stringent pollution control and environmental management requirements on industrial operations. For example:

- The European Commission has published a new draft directive with strict requirements for handling and disposing of hazardous wastes.
- The Seveso Directive of the European Community calls for the reporting of quantities of hazardous materials, as well as detailed hazard evaluations at facilities that handle or store larger quantities of hazardous materials.
- The Federal Republic of Germany, which already has some of Europe's most advanced laws on water and air pollution control, has just released new regulations governing waste handling and disposal.
- The Government of the Netherlands has put in place one of the most sophisticated hazardous waste management systems in the world.
- The Government of Taiwan elevated its environmental protection agency to a cabinet-level position; in the United States, President Bush recently announced similar intentions.

In addition, there is a world regulatory trend toward assigning strict liability to the polluter. The European Community, whose policy embodies the „polluter pays“ principle, has announced plans to impose strict liability on waste producers for any damage caused by their waste during its production, transportation, or unauthorized disposal.

In the United States, the regulations no longer rely solely on governmental enforcement. No fewer than 16 of the U.S. federal environmental statutes include provisions that empower citizens to file suits against suspected violators on behalf of the government and, if they win, to collect not only damage awards but also legal fees, making such initiatives largely self-funding. Under the Clean Water Act alone, the number of suits increased from 16 in 1982 to 198 in 1986.

Also in the United States, some state initiatives – together with other recent environmental legislation – suggest common implications for the way environmental issues will be managed around the world in the decades ahead.

- Until recently, most hazardous-substance regulation sought to limit the amount of chemicals discharged into the air, water, or ground. California's Proposition 65 (passed in 1986) established an entirely new principle: zero discharge of any substance known to cause cancer or birth defects, unless a risk assessment is conducted to

establish that such a discharge poses „no significant risk“ to health or safety.

- New Jersey's Source Separation and Recycling Act (enacted in 1987) was one of the first major attempts to create financial and marketing incentives for recycling. It has important national implications because more than half the states have shortages of solid waste disposal sites.
- Iowa's Groundwater Protection Act (passed in 1987) reflects the growing importance of nonregulatory educational techniques. It requires retailers to label hazardous household chemicals with specific information about their potential risk and proper disposal. The law also provides funds for the collection of hazardous household wastes, and requires farmers to be trained in the proper use of pesticides.

These initiatives have significant implications for businesses managing environmental issues. First, they create vast requirements for the collection and distribution of information, which will undoubtedly heighten public and customer awareness of environmental issues. Such massive public scrutiny will necessarily affect both public opinion and purchasing decisions.

Second, industry no longer enjoys an exclusive role in defining acceptable environmental risks. Today, the role of the general public is greatly expanded and institutionalized.

Third, we expect to see much more demand for products and services that will help consumers meet their environmental responsibilities. We also anticipate a greater willingness to pay for such „environmentally friendly“ products and services.

The Environmentally Aware Corporation

How, then, should corporations respond to these motivators in order to minimize environmental risk and prepare for the future? A number of progressive companies have had the foresight to view environmental control as a risk management issue. Operating more out of enlightened self-interest than altruistic motives, these companies are defining and advancing the state of the art in environmental, health, and safety management. They look not only to protect the environment but also to protect themselves, their shareholders, and other constituencies from present and future liability.

We have seen again and again what works for successful firms. Importantly, attitudinal changes start at the top of these corporations. The company's senior management, often supported by its board of directors, works to make the company a leader both in the business arena and in environmentally friendly products and processes. To accomplish this, senior managers make certain they have among them, or reporting to them, people with the expertise to deal with environmental regulatory, technical, and marketing issues. A corporate officer or director who does not believe that he or she has the information necessary for corporate protection should be seriously concerned.

Moreover, in these progressive companies, management puts systems in place to educate employees about using resources wisely, recycling where possible, and discharging as little as possible into the environment. Individual environmental responsibilities are well understood, even to the point that environmental objectives are written into performance goals and reviews. If employees cannot take pride in their corporation's environmental performance, the corporation will certainly lose respect in the broader corporate community.

Internal Environmental Programs

Sound environmental programs include internal processes for assessing the impact of the company's operations and products on the environment. Key aspects of such programs follow.

Policy and Procedures. A clear written environmental policy is essential. This policy should indicate that the company will meet all regulatory requirements and also will take the measures necessary to reduce the impact of its raw materials, processes, and products on the environment. To illustrate, the following are key statements from leading corporate environmental policies:

It is the policy of Allied-Signal Inc. to design, manufacture, and distribute all products and to handle and dispose of all materials safely and without creating unacceptable risks to health, safety, or the environment. The corporation will...adopt its own standards where laws or regulations may not be adequately protective....

The Rohm and Haas Company will take prudent action to ensure that its worldwide operations and products are free from unacceptable risks to the health and safety of its employees, customers, carriers, distributors, the general public, and to the environment.... The introduction of new products and processes will be managed by procedures which include appropriate reviews and control of safety, health, and environmental risks....

The (Union Carbide) Corporation will conduct its business responsibly, and in a manner designed to protect the health and safety of its employees, its customers, and the public, and to protect the environment. Programs will be implemented and maintained that...provide reasonable assurance that the Corporation...designs its facilities and conducts its operations in such a manner as to avoid unacceptable risk to human health and safety and the

environment....

It is our observation that companies derive both internal and external benefits from explicit written policies (Exhibit 1). To support these policies, specific written procedures should be available to cover all requirements for good environmental management.

Long-Range Planning. In companies that are successful at environmental management, all aspects of long-term strategic planning include consideration of the environmental impact of the proposed processes and products. Now more than ever, it is important to align environmental programs with business strategies. Many companies will be able to achieve competitive advantage based on environmental issues. Others may find that products that do not themselves pose environmental hazards but are manufactured in facilities that have poor pollution-control records, albeit in full compliance, may serve to brand the company as environmentally unfriendly. Therefore, forward-thinking companies are reducing, eliminating, or replacing – or planning to do so soon – environmentally unfriendly or hazardous materials, processes, and products.

Exhibit 1

Benefits of an Environmental, Health, and Safety Policy

<i>Basic Benefits</i>	<i>Primary Audience(s)</i>
Provides working principles, standards	Employees (including supervisors and managers)
Conveys leadership position	Employees, peer companies, customers, consumers
Demonstrates good faith	Regulators, judges and juries, potential and actual litigants, employees
Demonstrates environmental, health, and safety stewardship	Stockholders, board of directors, banks, insurers, community, regulators, potential acquiring companies
Enhances public relations, public image	Customers, community, consumers, media, stockholders, regulators, banks, insurers

Source: Arthur D. Little, Inc.

Environmental Legislation Monitoring. Companies that keep watch for emerging environmental issues that might affect their operations are in a better position to influence emerging laws or regulations, and, in some cases, to use the issues to corporate advantage. Moreover, a company can help ensure its ability to meet proposed legislation by training employees at all levels to implement all legislation that may affect the company or its operations, and to collect and maintain all pertinent data about the company's operations.

Accurate Inventory. A company that maintains in its operations an accurate inventory of the raw materials it uses, their sources, the products it produces, and where they are dispersed has a better chance of understanding the potential environmental impact of these materials and products. Adequate monitoring will enable the company to quantify discharges of significant contaminants from the company's operations or products into the atmosphere, ground surface water, and soils.

Impact Assessment. The impact of the production of these materials, their use, and their discharges on receiving environments and consumers should be continually assessed.

Standards Setting. Where government regulations do not yet exist to deal with a particular environmental threat, leading-edge companies are setting their own standards. For example, such a company would set its own targets for recycling a waste material rather than send it to an incinerator that may not be adequately combusted and may be producing harmful emissions.

Control Programs. Based on regulatory requirements or a company's own internal standards, it may become necessary to control certain company processes, change a raw material, or eliminate and replace a particular product. Both short- and long-term control programs should be detailed enough so that a company can plan the reduction of emissions from its operations, both from continuous discharges and accidental discharges.

Audit Program. Environmental auditing, the process of determining whether all or selected levels of an organization are in compliance with regulatory requirements and internal policies and standards, has proven to be a powerful component of environmental management programs. Today, boards of directors and senior managements are increasingly looking to these audit programs for „comfort statements“ attesting that their organizations are complying with all applicable regulatory and internal policies. Audits typically involve five distinct, yet interrelated, steps: understanding internal management systems and procedures, assessing the soundness of a facility's internal controls, gathering audit evidence, evaluating audit findings and exceptions, and reporting audit findings and exceptions.¹ A follow-up program is put in place to carry out the recommendations of the audit.

Emergency Prevention and Planning.

Increasingly, forward-looking companies plan for potential accidents from key operations and products, and how to deal with them. A corporate emergency prevention plan, based on complete and adequate risk assessments of all potential accidents from key operations and for all potential risks from products, will enable a company to react more quickly and efficiently should an accident occur. Continuous training of all staff about the operation of such environmental emergency and contingency plans is important to the plans' success.

Going Beyond Regulatory Requirements

A growing number of major corporations have been raising their environmental standards by adopting their own policies and procedures. Acting out of enlightened self-interest, managers at these companies are convinced that environmental risks to the corporation will be significantly reduced by adopting sound practices, even where the local laws are more lenient. The following excerpt from Monsanto's environmental policy statement exemplifies this progressive point of view:

Social responsibility means more than compliance with legal requirements. We will adhere to all laws governing corporate conduct, but we will not hesitate to go beyond legal requirements, if, in our prudent judgment, a higher level of performance is in order. Where applicable laws place unreasonable restraints upon us, we will work to change them through appropriate legal or legislative procedures.

Moreover, some leading companies are working together to adopt uniform policies that permit them to operate under one standard across international boundaries. These initiatives correspond to the shift away from simple pollution control and toward a risk management approach to environmental issues.

Environmental auditing programs provide yet another approach to going beyond requirements. Environmental audits, quite unusual when first conducted in the late 1970s, are now commonplace among major industrial corporations and are beginning to be adopted by a number of smaller companies. These independent oversight-and-review programs are set up by management to confirm whether a company is meeting government requirements and also, increasingly, whether a company's own environmental management standards are being met.

It is likely that the concept of environmental auditing will gain even more visibility as corporations consider supporting the „Valdez Principles“ proposed by a consortium of socially minded environmentalists and investment groups in late 1989. These principles attempt to define a code of responsible corporate conduct and call for pledges to eliminate pollution, use renewable resources, minimize hazardous wastes, and adopt certain management practices (Exhibit 2).

Some industrial groups also advocate principles to improve environmental management. One relatively early example is the Responsible Care Program established by the Canadian Chemical Producers Association in 1985, which attempts to define a code of responsible corporate environmental management conduct. The Blue Angel labeling program was introduced in 1977 by the West German Government as a voluntary system for evaluating products. Although initially the program was accepted only reluctantly by industry, several companies demonstrated that such an „environmentally friendly“ label could boost business. Now the program is viewed as a model for licensing the environmental safety of products.

Managing for Strategic Advantage

Progressive companies in environmental stewardship are finding that strategic benefits can be both internal and external, and can enhance a company's relationships with all its constituencies – employees, neighbors, customers, suppliers, regulators, and financial groups. These companies also understand that these relationships, and the opportunity to gain competitive edge, have to be managed. The following are characteristics of

companies that know how.

Exhibit 2

Key Elements of the „Valdez Principles“ for Guiding Corporations Toward Environmentally Sound Practices

- Protection of the biosphere
- Sustainable use of natural resources
- Reduction and disposal of waste
- Energy efficiency and conservation
- Risk reduction to employees and surrounding communities
- Marketing of safe products and services
- Damage compensation
- Disclosure of environmental incidents
- Environmental directors on corporate boards
- Annual corporate environmental audit

Source: Coalition for Environmentally Responsible Economics (CERES)

- They educate their employees about the corporation's environmental policies, how to support them, and how to articulate them. Employee knowledge and pride not only contribute to a safer working environment and increased productivity, but also help establish the company's reputation as an environmental leader.

- They educate their neighbors and the general public about their environmental programs, their emergency plans, and their commitment to a risk-free environment. Typically, representatives of the local community are invited to observe plant operations and are kept informed about raw materials, processes, products, discharges, and emergency preparedness plans. Going beyond the local community, they know how best to present the corporation's environmental record to the public through a forthright public relations program – even during a time of crisis.

- Customers and suppliers are effectively informed about the company's environmental programs and performance as well as about individual product safety. A manufacturer that replaces potentially dangerous products or processes with environmentally safe ones not only saves the cost of pollution control equipment and waste disposal and reduces the chance of liability, but also can expect to gain stronger customer loyalty. In the chemical industry, for example, a product's environmental friendliness is often the result of the manufacturer's avoidance of solvents, heavy metals, asbestos, CFCs, dioxins, softeners, and other substances considered environmentally sensitive. And these new products are growing. In West Germany, for example, the production value of zeolites for phosphate-free detergents has risen by about 40 percent in the last three years; the market for solvent-free powder coating is expanding at a rate of 15 to 20 percent a year; and the market for water-based adhesives is growing at 10 to 12 percent a year, as compared to about 6 percent per year for the market as a whole.

Some consumers are also beginning to choose environmentally friendly products that are manufactured in an environmentally responsible way. For the manufacturer, this means examining both its own environmental practices and those of its business partners. In the auto industry, for example, the original equipment manufacturer eventually may be responsible in the eyes of the consumer not only for its own products and its own environmental performance, but also for the performance of its suppliers and distributors.

In Northern and Central Europe, environmental concerns have already reached levels that significantly affect consumers' purchasing decisions. In Germany, Switzerland, Austria, the Netherlands, and to a certain extent Great Britain, the market for consumer goods such as detergents, cosmetics, and appliances has been strongly influenced by „green“ arguments. Products that have less impact on the environment have gained market share, some dramatically. Although comparable growth in demand for „green“ products has yet to appear in the United States, initial signs can be seen in areas of traditionally high environmental awareness such as the West Coast and New England.

Strategic choices – prospects for new market expansion – are leading some companies into the business of providing environmental technology and expertise. Companies build on expertise gained in their own operations

to provide similar services to other companies. Plastics companies, for example, are diversifying into plastics recycling, and construction companies are active in sewage plants, soil cleaning, and dump security. In each of these markets, companies are building on their existing strengths, together with their understanding of environmental needs and market trends, to expand into new business opportunities.

The Shape of Things to Come

Through the next decade, we see business taking an extremely active role in environmental management. More and more businesses will take steps to ensure that all managers understand and take into account the role of the public in determining the acceptability of the risks associated with their operations. They will assist customers and the general public in understanding those risks through aggressive education and awareness programs. In addition, they will work more cooperatively and creatively with local governments and community groups on environmental issues. Whenever possible, they will leverage business opportunities by offering products and services that meet or exceed community standards for health and safety. And, most important, they will accept increased responsibility, along with all of us, for preserving and protecting the environment.

¹ For additional information, readers are referred to two Arthur D. Little books: *The Environmental, Health, and Safety Auditor's Handbook and Environmental Auditing – Fundamentals and Techniques*. Information about the books is available from Arthur D. Little's Center for Environmental Assurance, 617-864-5770.

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