

Environmental Excellence: Meeting the Challenge

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Environmental, health, and safety management is one of the most pressing challenges facing corporations today. However, except for a handful of progressive companies, most organizations are not yet devoting to this critical area the full attention and resources it needs. The „wait-and-see“ management posture prevalent among some corporations is not only ineffective but dangerous. It can quickly threaten a company’s competitive position – and even its viability.

This article presents insights gained in the course of assisting many companies that are taking the lead in addressing environmental issues. It suggests some approaches that work.

Why Act Now?

Companies must take an urgent interest in their environmental, health, and safety performance for four principal reasons:

The Liability Threat. Liability suits resulting from regulatory infringement or a major environmental, health, or safety crisis can cause significant losses in terms of money, management time, and personal or corporate reputation – particularly in North America, but increasingly also in Europe. A major oil spill, for example, may cost many millions of dollars in legal fees alone – in addition to cleanup costs and fines. Furthermore, courts are increasingly likely to hold officers and staff managers liable for civil damages caused by environmental issues. There have also been cases in which corporate officials have been tried as criminals and have gone to jail without proof that they knew of the illegality of their own or their subordinates’ actions. The threat of legal and financial liability is real – and court actions are likely to become more common.

Regulatory Pressures and Costs. As laws and regulations become more stringent, and as companies commit themselves to tougher internal standards, compliance costs increase. In the United States, the Fortune 500 companies are estimated to spend some \$46 billion a year, or 2 percent of sales, on environmental, health, and safety protection. And these expenditures are likely to grow. Financial commitments of this magnitude require companies to formulate long-term objectives and strategies. Key decisions include how much to invest in personnel and systems that will help keep the company in compliance with growing regulations and when to hold back on these operational investments with an eye on the bottom line.

Public Scrutiny. Corporate management of environmental matters is now subject to intense public scrutiny and media attention. High visibility, both good and bad, can influence a company’s revenues. As windows of information continue to open much wider than in the past, the public is in a better position to assess and compare the environmental performance of individual companies and their product lines. In the United States, for example, provisions under Section 313 of the Superfund Amendment and Reauthorization Act provide the public with unprecedented access to environmental information about individual companies, their industrial plants, and their products. Similarly, a recently issued European Community directive provides freedom of access to environmental information (see the article by Bernhard Metzger in this issue of *Prism*).

The public is also beginning to consider corporate environmental performance criteria in its evaluation of companies. An Arthur D. Little subsidiary, Opinion Research Corporation, has been surveying the public about individual corporate reputations for more than 30 years. In recent years, that study has included analysis of corporate environmental image. In a 1990 study, Opinion Research Corporation found that reputational elements describing a company’s environmental attitude carry as much weight in public opinion as do traditionally influential elements, such as dependability, honesty and ethics, and values. The importance ratings of virtually all the environmental statements are moving closer to those of other traditionally crucial issues (Exhibit 1). Furthermore, a 1991 survey revealed that 84 percent of the American public believes that damage to the environment is a serious crime, and three out of four Americans think corporate executives should be held personally liable for such offenses.

Competitive Opportunities. Perhaps most important, environmental issues offer a range of opportunities for improving the competitive position of a product, a service – or an entire company. The question is, which environmental factors are likely to become new bases of competition in your industry – „cleaner“ manufacturing processes? „greener“ raw materials? recyclable packaging? What are your competitors doing about environmental issues? Which opportunities are they pursuing? And how do you go about establishing your own environmental agenda?

Exhibit 1

Public Attitudes Toward Corporate Reputational Elements

Percentage of respondents selecting these attributes as of highest importance

Corporate issues

• Is honest and ethical in its dealings with others	51
• Lives up to its guarantees and promises	51
• Is honest in the conduct of its business	48
• You can depend on its products and services	46
• Its products and services give good value for the money	44

General environmental concern

• Its policies demonstrate a definite concern for the environment	46
• Is responsive to public concerns about the environment	44
• Does a good job of environmental self-regulation	44
• Actively works to minimize the generation of wastes	44

Source: Opinion Research Corporation

Four Critical Tasks

In order to ensure excellence – what we might call gold-star performance in environmental, health, and safety management – each company must address four critical tasks: positioning, learning, communicating, and catalyzing progress.

Positioning. We define the first task, positioning, as specifying the company's environmental, health, and safety (EHS) management posture. What is your company's EHS base line – where you stand today? Where do you want to be in 1 year, 5 years, 10 years? What constitutes a sound, far-reaching EHS management program? How do you develop and position your products and services in the context of your EHS posture?

To characterize corporate postures with respect to environmental, health, and safety issues, we use a three-stage framework whereby companies move from problem-solving through managing for compliance to managing for assurance (Exhibit 2). Currently, most major corporations in North America – and increasingly in Europe – are in Stage 2, managing for compliance (Exhibit 3). Importantly, actual EHS posture in company facilities tends to lag behind corporate EHS programs, standards, and goals. Other corporate performance goals, such as profitability, can seem at odds with environmental, health, and safety performance goals and can overshadow them, at least in the short term.

A company can use this three-stage framework to evaluate where it stands with respect to environmental, health, and safety management and where it wants to be. Various mechanisms help a company judge its current position in EHS management. These include environmental audits, benchmarking methodologies, assurance letters, and others.

The environmental audit – and particularly the written audit report – is an important vehicle for providing information and assurance to corporate officers about the company's environmental, health, and safety progress or lack thereof. Audit reports also offer EHS professionals an opportunity for sharing valuable information with top management.

Some leading companies have also begun to use a benchmarking approach. They identify companies with outstanding environmental management practices and then interview those companies to learn their approaches and adapt them for use in their own companies. General Electric, for example, is taking this approach.

Exhibit 2

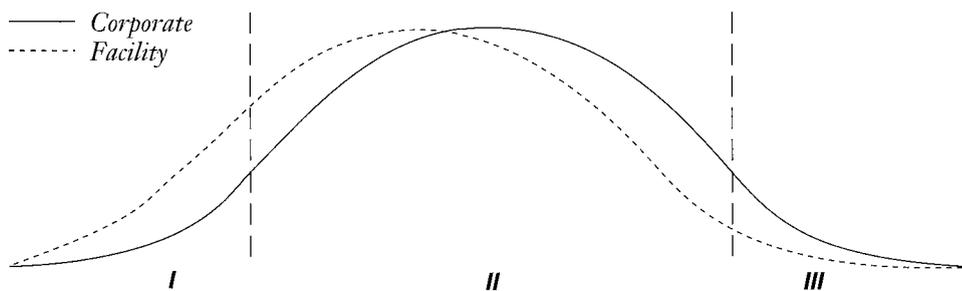
Framework for Characterizing a Company's EHS Management Posture

	<i>Stage 1</i>	<i>Stage 2</i>	<i>Stage 3</i>
<i>General thrust</i>	Problem-solving	Managing for compliance	Managing for assurance
<i>Primary purpose</i>	Defining basic goals and directions; solving immediate problems	Building systems and competence to achieve goals; coordinating compliance efforts and solutions to common problems	Ongoing management of risks and opportunities; basic organization and management systems are in place
<i>Primary motivations</i>	Avoiding burdensome costs	Using resources effectively; avoiding large changes in the way things are done	Protecting internal resources and external environment from harm
<i>Vulnerabilities</i>	Surprise events that have material impact	More attention to compliance than to future liability	Increased investment in environmental assurance without obvious immediate payback

Source: State-of-the-Art Environmental, Health, and Safety Programs: How Do You Compare? Center for Environmental Assurance, Arthur D. Little, Inc.

Exhibit 3

Distribution of Environmental, Health, and Safety Postures – Corporate vs. Facility



Another tool used by a growing number of companies is the assurance letter. Typically initiated by the CEO, the letter is a top-down, bubble-up mechanism that enlists the participation of all managers, down to the plant level, in identifying and communicating matters of noncompliance and correcting significant deficiencies. Allied-Signal and Hoechst-Celanese both use this mechanism successfully.

Once a company understands the current state of its environmental, health, and safety programs, it can define a desired state and launch a program to achieve it. In our experience, effective programs have four organizational characteristics in common:

- *Clear, constant top management support.* Unless the entire organization understands management's needs and expectations, everyone will waste a lot of effort second-guessing.
- *Resources commensurate with the company's posture.* Environmental excellence requires appropriate financial commitments; top-quality, trained professionals; physical systems (e.g., for pollution control) that make use of the best available technology; and preventive maintenance programs.

- *Line responsibility for EHS performance.* Whether it is the foreman, the operator on the floor, or the materials manager who may be handling hazardous waste, each individual knows that he or she has direct accountability and responsibility for making things happen right.

- *Ongoing awareness and training programs.* Effective programs include an ongoing communication effort that takes the form of safety awareness training, as well as documents and presentations that articulate the company's expectations for good environmental, health, and safety management. All employees, from operating personnel on the floor to senior executives, become aware of the need to be responsible for environmental management.

In addition to these organizational characteristics, a state-of-the-art EHS management program generally has 10 specific elements soundly in place or well along in development. These are listed in Exhibit 4 and discussed below.

- *Clearly communicated policies and procedures.* The policies and procedures that clearly define the goals and expectations of the corporation are formal, written, and widely distributed. They are communicated in a variety of formats, including printed documents and – often – videotapes. These materials are used routinely in training sessions. They typically discuss the central policy that frames the beliefs and expectations of the company, and may be complemented by written procedures at the facilities level or by a number of issue-specific policies. For companies operating worldwide, policies are typically applicable no matter where the plant or facility is located.

Exhibit 4

Ten Elements of Successful EHS Management

- Policies and procedures
- The right organization
- Day-to-day management systems
- Long-range planning process
- Overall risk management system
- Regulatory surveillance
- Management information systems
- Project and program reviews
- Issue-specific programs
- Oversight and control

- *The right organization.* If a company is centralized, its environmental, health, and safety system should be centralized as well; if the company is decentralized, the system should generally be decentralized. It is important to have specified roles and responsibilities for people throughout the organization. Typically, a strong environmental, health, and safety network feeds into the various departments – legal, engineering, production, and R&D – in order to bring together all the applicable resources to manage environmental, health, and safety matters properly.

- *Day-to-day management systems.* Systems are put in place to identify and correct problems, investigate incidents, provide training, operate and maintain control equipment, document performance, manage compliance (e.g., through inspection systems), and report performance.

- *Long-range planning.* Formal planning systems can ensure that environmental, health, and safety plans are congruent with the company's business plans. In addition, management needs to identify and track emerging issues that might affect the company, influence emerging laws or regulations if possible, and, in some cases, exploit the issues and use them to corporate advantage. The company also needs to ensure adequate resources in capital and operating budgets to manage environmental, health, and safety issues.

- *An overall risk management system.* The hallmark of a Stage 3 company is an overall risk management system that maintains complete cognizance of what the environmental, health, and safety risks of the company are, how they are ranked in importance, and how they are being managed. The company assesses its risks frequently, acknowledging that risks tend to change over time. This function is typically carried out by a corporate risk management committee that can make certain, for example, that corporate policies are developed, distributed, and understood; that toxicological data are appropriately managed; and that major programs are put in place. The risk management system ensures that priorities have been set and resources allocated so that the more serious

risks are addressed quickly. It tracks performance in dealing with these risks and then reports that information to top executives. Where appropriate, it secures insurance to share liability.

- *Regulatory surveillance.* Regulatory surveillance means keeping track of emerging laws and regulations and taking action to influence them, whenever possible. It means understanding what is happening nationally, regionally, and in the local community. A company that fails to keep track of emerging laws and regulations may find itself forced to comply with cumbersome regulations that might have been written more „realistically“ from its perspective if the company had participated in the process early on.

- *Management information systems.* Such systems allow companies to document EHS performance and retain pertinent records for prescribed lengths of time. For example, automation can help corporate managers track conformance with all of a plant’s wastewater discharge limits or the history of an employee’s exposure to a specific chemical in a given work area.

- *Project and program reviews.* For capital projects, the environmental, health, and safety review process usually takes place at several stages: at conception, at the conclusion of preliminary engineering, after the completion of final design drawings, and shortly before start-up. It is vital that reviews of capital projects be conducted by environmental, health, and safety professionals rather than by the engineering personnel who are designing the project. It is also important to review maintenance modifications, which sometimes slip through the cracks.

Similarly, environmental due-diligence assessments of candidates for acquisition need to take place well before the purchase-and-sale contract is struck, in order to structure the deal in a way that protects the buyer. Finally, research and development projects deserve scrutiny, both to ensure that the researchers’ health and safety are protected and that emissions and wastes from the R&D phase are correctly handled and also to minimize the long-term, full-scale environmental, health, and safety impact of the product or process in question.

- *Issue-specific programs.* These include, for example, waste minimization, audits of commercial and disposal facilities, monitoring of underground storage tanks, and supervision of Superfund sites.

- *Oversight and control.* Frequently, this is a companywide audit program that is complemented by inspections at the local facility level. Oversight and control efforts help management understand whether environmental, health, and safety systems and policies are in place and whether they are working – particularly from an outsider’s perspective.

Learning. The second critical task for the corporation consists of developing two important knowledge bases: a broadly accessible information bank about the company’s performance and a senior manager’s personal knowledge base.

The information bank should include information about these areas in particular:

- The company’s own EHS standards (including both internal and applicable external standards) and the company’s performance against those standards

- A comparison between the company’s standards and those of its peer companies and competitors. This area is particularly important when first establishing EHS goals and position.

The senior manager’s personal knowledge should include information about current EHS issues; pertinent regulatory directions and their implications; the company’s current environmental posture; the company’s performance relative to regulations and corporate goals; the performance of peer companies in the same or related industries; and the competitive position of the company’s products and services in the context of EHS issues. The officer develops this knowledge through personal networks, associations within the industry, communications channels up and down the organization, and particularly formal reporting networks with the corporate EHS staff. Moreover, this personal knowledge should reflect a commitment to continuous improvement companywide, because as a company is examining one area, its competitor may be developing another and establishing a new level of environmental competitive edge.

Communicating. Closely tied to learning is the third corporate task, communicating. Field visits, meetings with line management, and oral communications in staff meetings can send – or reinforce – top management’s message that EHS issues are particularly important for the company to address, while assurance letters, environmental audits, and other ground-level reports, as well as regular status reports, enable management to hear back from the field about progress and problems.

It is important to recognize here that corporations are increasingly accountable to, and communicating to, an expanding range of constituencies. These include not only employees in all divisions of the company, but also customers, suppliers, local communities, the board of directors, the shareholders, and, increasingly, the public at large. Consequently, companies are developing ways to communicate about their EHS programs with all these constituencies.

For example, companies are talking about EHS through annual reports and other reports to the shareholders and the public at large. Dow Chemical's 1989 annual report focused on the company's environmental commitment as „the one issue, more than any other, [that] will affect Dow's prospects in the '90s and beyond.“ Chevron issued a report to its „stakeholders“ highlighting its environmental programs and progress. Waste Management has committed itself to 14 principles of environmental excellence, and it will provide a thorough and substantive annual review and report to the public on its performance with respect to each of these principles.

Other companies, too, are making bold public statements about their environmental goals. In 1988, Monsanto made a commitment to reducing toxic air emissions to zero, with a benchmark of 90 percent by 1992; its chemical division recently made a commitment to reducing organic and toxic inorganic process wastes by 70 percent by the end of 1995. Polaroid has made a commitment to cutting toxic use and waste, per unit of production, by 10 percent per year over five years, with 1988 as the base year. There are obvious risks involved in taking such a bold stance. However, for companies that are committed to environmental excellence and realistic about their prospects for success, the rewards of this kind of commitment – and public communication about it – can be great.

Similarly, industry associations are playing a vital role in helping companies communicate with each other about problems and progress, establish industry or global standards, and, ultimately, establish and communicate about viable expectations. A prime example is the Responsible Care program first developed by the Canadian Chemical Producers Association – and serving as a model for similar programs by the Chemical Manufacturers Association and more than a dozen other associations around the globe. An important example of this kind of shared role in commitment and communication was the second World Industry Conference on Environmental Management (WICEM II), which took place in Rotterdam in April 1991. At the conference, 800 business leaders endorsed the Business Charter for Sustainable Development. Underpinning this document are 16 principles developed by the International Chamber of Commerce, which are designed to place environmental management high on corporate agendas and encourage policies and practices for carrying out operations in an environmentally sound manner. These principles are listed on pages 28 and 29.

Catalyzing Progress. The final critical task for the organization – through the CEO or the top EHS executive – is that of catalyzing progress. Sometimes catalyzing progress means correcting problem areas. Other times, catalyzing progress may mean building on what is already good – always looking for more effective ways to ensure and improve performance. The role of catalyst is crucial because companies, like other human institutions, tend to resist change. Top management and key players in EHS performance should be alert to some typical hurdles we have observed:

- *Resistance to change.* Paradoxically, this hurdle most often appears when things are running smoothly (or at least appear that way). „Why should we change anything when everything is going well?“ „Why risk it?“ The answer to these questions is that the competitive environment constantly changes – and EHS programs must change in response. To counter resistance to change, companies should first insist on environmental reviews of potentially adverse effects of all major proposed changes to facility operations. Second, ongoing attention to operations review – for example, by means of audits – and to product reviews through life cycle analysis will help identify areas requiring improvement or change.
- *Hierarchical impediments.* If management is listening to employees and maintaining an open-door policy, internal barriers shouldn't be a problem. But sometimes differences of opinion can inhibit an employee's coming forward with a potentially valuable idea. Management should make sure there are mechanisms in place to enable every employee to get his or her idea to someone who can help think it through. Mechanisms range from a „suggestion box“ that collects ideas for the facility head to incentive programs that reward the employee and his or her manager.
- *Vague responsibilities.* Many organizations have not yet developed clear understanding about roles, responsibilities, and accountabilities in environmental management. To be effective, the location of functional responsibility for environmental management should be clearly identified, along with lines of authority and accountability. Where possible, environmental performance expectations should be built into job descriptions and performance reviews.
- *Prolonged planning.* All the best intentions and plans can stay right on the launch pad if no one puts them into action. The tendency to plan rather than act can be a major hurdle. To avoid this, a company should provide both a clear sense of the company's goals and objectives regarding environmental performance and the right organizational incentives and resources to meet those commitments.

The 16 Principles of the Business Charter for Sustainable Development

1. Corporate priority

To recognize environmental management as among the highest corporate priorities and as a key determinant to sustainable development; to establish policies, programs and practices for conducting operations in an environmentally sound manner.

2. Integrated management

To integrate these policies, programs and practices fully into each business as an essential element of management in all its functions.

3. Process of improvement

To continue to improve corporate policies, programs and environmental performance, taking into account technical development, scientific understanding, consumer needs and community expectations, with legal regulations as a starting point; and to apply the same environmental criteria intentionally.

4. Employee education

To educate, train and motivate employees to conduct their activities in an environmentally responsible manner.

5. Prior assessment

To assess environmental impacts before starting a new activity or project and before decommissioning a facility or leaving a site.

6. Products and services

To develop and provide products or services that have no undue environmental impact and are safe in their intended use, that are efficient in their consumption of energy and natural resources, and that can be recycled, reused, or disposed of safely.

7. Customer advice

To advise, and where relevant educate, customers, distributors and the public in the safe use, transportation, storage and disposal of products provided; and to apply similar considerations to the provision of services.

8. Facilities and operations

To develop, design and operate facilities and conduct activities taking into consideration the efficient use of energy and materials, the sustainable use of renewable resources, the minimization of adverse environmental impact and waste generation, and the safe and responsible disposal of residual wastes.

9. Research

To conduct or support research on the environmental impacts of raw materials, products, processes, emissions and wastes associated with the enterprise and on the means of minimizing such adverse impacts.

10. Precautionary approach

To modify the manufacture, marketing or use of products or services or the conduct of activities, consistent with scientific and technical understanding, to prevent serious or irreversible environmental degradation.

11. Contractors and suppliers

To promote the adoption of these principles by contractors acting on behalf of the enterprise, encouraging and, where appropriate, requiring improvements in their practices to make them consistent with those of the enterprise; and to encourage the wider adoption of these principles by suppliers.

12. Emergency preparedness

To develop and maintain, where significant hazards exist, emergency preparedness plans in conjunction with the emergency services, relevant authorities and the local community, recognizing potential transboundary impacts.

13. Transfer of technology

To contribute to the transfer of environmentally sound technology and management methods throughout the industrial and public sectors.

14. Contributing to the common effort

To contribute to the development of public policy and to business, governmental and inter-governmental programs and educational initiatives that will enhance environmental awareness and protection.

15. Openness to concerns

To foster openness and dialogue with employees and the public, anticipating and responding to their concerns about the potential hazards and impacts of operations, products, wastes or services, including those of transboundary or global significance.

16. Compliance and reporting

To measure environmental performance; to conduct regular environmental audits and assessments of compliance with company requirements, legal requirements and these principles; and periodically to provide appropriate information to the board of directors, shareholders, employees, the authorities, and the public.

Source: International Chamber of Commerce

The Role of Senior Management

In committing an organization to the four critical tasks outlined above – positioning, learning, communicating, and catalyzing progress – company officers and directors are protecting their companies from undue liabilities, helping to ensure corporate stability and growth, and also protecting their own self-interest. The CEO – or, in some cases, the chairman – needs to play a critical and highly visible role as both internal and external champion of environmental excellence. To do so, he or she needs information: that is, the answers to a lot of important questions that some senior managers may not yet be asking.

Within the company, the CEO is in a particularly powerful position to convince all employees that environmental excellence is a corporate priority. Externally, the CEO works with the board of directors to convey the company's position on environmental issues to the shareholders and, ultimately, to the broader public. Shareholders have become very vocal in recent years. They are demanding that companies demonstrate greater accountability for environmental programs and performance. In response to this demand, and in fulfillment of their responsibilities as „overseers,“ the board members must determine whether the environmental programs put in place are effective.

Perhaps most important, the company's senior management – generally the CEO, often supported by the board of directors – commits the company to environmental programs that are consistent with the objectives and culture of the company and the expectations of shareholders and other corporate stakeholders. For some companies, this commitment may mean developing and implementing their first companywide program or upgrading existing programs. For others, it may mean becoming environmental leaders, both in managing their own internal environmental, health, and safety affairs and in positioning themselves to take advantage of environment-related business opportunities. Perhaps most important, there is an opportunity today to take a leadership role, not only within companies but also within industry, to help shape future excellent environmental performance.

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