International Journal for Sustainable Business

Reprint No. R110702163
ISSN 1066 7938

Corporate Environmental Strategy
International Journal for Sustainable Business
Volume 11, Issue 7 (July/August 2004)
Contents

Corporate Environmental Strategy: International Journal for Sustainable Business (*CES Journal*) is published 10 times a year (monthly except August and December) by NetLogex, LLC, 3203 4th Street, Boulder, CO 80302-2104. Subscription rates, reprint rates and ordering information are shown on our web site at **www.cesjournal.com**. Please direct product inquiries to: *CES Journal*, 251 Adams Street, Denver, CO 80206-5213; phone: +1 303 316 8435; fax: +1 303 444 2165; email: info@cesjournal.com. POSTMASTER: Send address changes to NetLogex, LLC, 3203 4th Street, Boulder, CO 80302-2104.

Publication Information

Publication, Reprints and Order Information

Corporate Environmental Strategy: International Journal for Sustainable Business (*CES Journal*) is published by NetLogex, LLC. Subscription rates, reprint rates and ordering information are shown on our web site at www.cesjournal.com and on the order forms at the back of this volume. Please direct product inquiries to: *CES Journal*, 251 Adams Street, Denver, CO 80206-5213; phone: +1 303 316 8435; fax: +1 303 444 2165; email: info@cesjournal.com.

International Journal for Sustainable Business

www.cesjournal.com
Organizations in Transition: An Annotated Bibliography
netLogex

Organizations in Transition: An Annotated Bibliography of Published Literature on Environmental, Health and Safety Organizations

Elizabeth Karan and Richard MacLean

For at least the past five years, environmental, health and safety (EHS) organizations have been caught up in relentless business re-engineering and other company-wide restructuring efforts. Top-down driven business initiatives to stay competitive and cut costs in a struggling economy have created major structural changes and staffing reductions in EHS groups. While the movement toward "right-sizing" has been applied to all staff functions, not just EHS, it comes at a time when corporate social responsibility, sustainable development and global EHS impacts are emerging as looming concerns for many companies.

EHS professionals, particularly at the site level, are taking on much broader assignments with fewer resources at their disposal. Corporate EHS organizations have moved toward centralized, shared service-type structures with outsourcing a dominate factor at all levels. The purpose of this annotated bibliography is to provide EHS managers with a summary of relevant academic and management literature to help them navigate the impact of current management trends and evolving corporate environmental strategy on organizational structure and EHS management. One hundred and thirteen resources are reviewed.

Elizabeth Karan is the Marketing Director for Earth Tones, a telecommunications company founded and owned by non-profit environmental groups; a University Researcher for the Center for Environmental Innovation (CEI); and a M.A. degree candidate at The Fletcher School of Law and Diplomacy at Tufts University with a focus in International Environmental Policy and Economics.

Richard MacLean is the Executive Director of the Center for Environmental Innovation (CEI), a university-based nonprofit research organization; the President of Competitive Environment Inc., a management consulting firm established in 1995 in Scottsdale, AZ.; and an adjunct Professor at Arizona State University. He also is on the Editorial Advisory Board for *Corporate Environmental Strategy*.

Corresponding Author: Richard MacLean, Center for Environmental Innovation, 6618 E. Caron Drive, Scottsdale, AZ 85253, Tel: 480-922-1620, email: maclean@Competitive-E.com

Introduction

Since the awakening of the environmental movement in the late 1960s, environmental conditions in the United States have improved gradually in most areas, as claimed by the EPA in its most recent status report. Similar progress has been made with respect to occupational safety and health is-

sues as reported by OSHA and the National Safety Council. Many of the most visible EHS problems in the United States have been addressed and, as a result, media reporting and public concern has waned.

One consequence of this forward progress is that more than ever EHS departments and their staffs are viewed as overhead and are under tremendous pressure, similar to other business staff departments, to hold or cut costs. Many corporate EHS departments are even facing extinction as their traditional responsibilities (i.e., regulatory compliance, management of day-to-day issues, auditing, and community and agency relations) are reassigned internally ("embedded") or outsourced in today's economic atmosphere. EHS professionals also are being asked to take on much broader assignments (e.g., security in the wake of 9/11), product quality and other business issues.

While traditional, regulatory-driven responsibilities continue to dominate the EHS agenda, corporate social responsibility and sustainable development have become growing concerns for many companies. Although these emerging issues represent a potential major paradigm shift in corporate thinking, in general the overall EHS organizational structures have remained similar to those that developed during the 1980s.

Even with the advent of shared services, outsourcing, downsizing and greater embedding of EHS responsibilities into line functions, the prevailing organizational philosophy on how to organize and staff specialized EHS expertise has remained unchanged. The philosophy of doing more with less and "multi-tasking" may have increased the span of responsibilities in some companies, but core EHS roles and responsibilities have not changed significantly.

Potentially more problematic is that the influence and standing of EHS professionals within companies has not improved notably within most companies. Indeed, one may claim that their position may have lost ground. From the mid 1970s through the mid 1990s the size and status of EHS organizations was driven by mega-dollar capitol retrofits required by new regulations. Management was influenced by the "you can go to jail" mantra of some EHS professionals. Understandably, they wanted to have the top people close at hand to insure that they would not run into problems. Not surprisingly, the number of EHS vice president positions expanded dramatically between the mid 1980s to mid 1990s.

Recently there has been a number of significant "retirements" of some of the most senior and experienced EHS directors and vice presidents in major corporations.[1] Whether this is a trend, an aberration or a natural progression brought on by a profession that ramped up during the 1970s with professionals now reaching retirement, we do not know. But some of these senior staff changes also have been accompanied by reorganizations that appear, at least on the surface, to provide a less aggressive pursuit of EHS objectives.

That said, there is growing awareness that EHS management needs to significantly progress to "something different" to meet emerging, global EHS issues. There is little doubt that EHS organizations continue to evolve, though the precise nature of the transformation currently is speculative. For instance, there are some examples where environmental organizational change has occurred in response to recent concerns for corporate governance and social responsibility. Companies such as Con Edison and Arizona Public Service have transferred their environmental auditing staffs into corporate business governance departments. Other companies, such as Procter & Gamble and Intel, have created senior-level positions to address corporate social-responsibility issues.

[1] "The Dimming of EH&S's Bright Lights," Green Business Letter, Tilden Press, Inc., Oakland, CA, April, 2004, Page 5.

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

Relevant EHS organizational information is extremely hard to come by. The vast majority is antidotal information or is contained in relatively few literature articles dealing with specific aspects such as EHS outsourcing. The market for EHS organizational support is extremely small in comparison to business organizational support. Historically, major EHS organizational restructurings have not been initiated by EHS executives; they have been appendages to broader business-initiated efforts. Typically these were (and continue to be) influenced by external consultants more familiar with how to reorganize a marketing, manufacturing or accounting department. Not surprisingly, the results have been disastrous for EHS groups.

A.D. Little, a Boston-based consulting company, once provided learned support in this area and published booklets in 1993 and again in 1996. However, this company was sold in 2002 to five different buyers and the branch with expertise in this area was fragmented. In response to the overall vacuum that exists in this critical area of EHS management, the Center for Environmental Innovation, a university-based nonprofit research center, initiated the project Organizations in Transition.

The Organizations in Transition research effort has produced, to date, journal articles on the evolution of EHS organizational strategy;[2] organizational performance;[3] and on a screening protocol for high-performing organizations.[4] This article is one phase in the overall effort to bring facts and best practices to a important EHS consideration that, for the most part, has been managed by default (i.e., driven by broader business reorganizations and financial consideration). Additional information on this research can be obtained at www.Enviro-Innovate.org.

Methodology and Format

This annotated bibliography presents a "one-stop shopping" approach aimed at providing EHS managers with information to help them navigate the impact of evolving corporate EHS strategy on organizational structure. The purpose here is to present the best relevant academic and management literature in order to better understand the drivers and landscape of the corporate environment EHS managers are facing, and how EHS departments and staff are adapting to these changes.

While there are no books dedicated to EHS organizational theory, since the 1992 United Nations Earth Summit in Rio there have been a few publications that focus on organizational issues, generally in relationship to corporate EHS strategy. Specific EHS organizational structures usually are revealed in discussions of the evolution of business management's philosophy in dealing with regulatory trends or revealed through corporate case studies. Again, there is no single authoritative set of journals, magazines or books for information published on EHS organizational issues. In this respect, this article is unique.

The research was conducted at Tufts University and Boston University beginning in May 2002, updated in September 2003 and again in April 2004. The bibliography is organized alphabetically by the primary author's last name, under descriptive section headings. The annotations are written to clarify the documents' relevance and highlight its discussion of EHS organizational structures and strategies, and to indicate authors' corporate affiliations where relevant. Unambiguously titled documents, such as conference presentations and chapters of edited publications do not have annotations.

Below is a list of several online research resources and databases that are particularly

[2] E. Karan and R. MacLean, Corporate Environmental Organizations: Evolving Business Management Strategies, see bibliography.

[3] R. MacLean, Superior Environmental Health and Safety Performance A peer survey of what it is and which corporations have it, see bibliography.

[4] Y. Yang and R. MacLean, A Template for Assessing Corporate Performance: Benchmarking EHS Organizations, see bibliography.

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

helpful, including the appropriate internet access and subscription information. The 13 articles listed in this bibliography authored or co-authored by Richard MacLean can be accessed via the author's website at www.Competive-E.com.

- **ABI/Inform**
  http://proquest.umi.com/pqdweb?RQT=407&TS=1027529443
  Full-text articles from business and management journals. Access requires subscription.

- **Emerald Management Reviews**
  http://www.emeraldinsight.com
  Over 100 individual management journals, includes a substantial collection of engineering and materials science titles. Free keyword searches and abstracts available. Free trials are available via the Internet for all our online journals and databases, allows some free article downloads.

- **Environmental Expert — Magazines**
  http://www.environmental-expert.com/magazines.htm
  Business and Scientific Journals section presents over 100 titles published by the world's leading publishers. Read free sample content, request a free trial and subscribe online.

- **Ingenta**
  http://www.ingenta.com
  Online article database with keyword, title and subject searches available; includes a Business and Economics section. Enables access to the full-text of journal subscriptions online and, in addition, gives chance to purchase articles from over 26,000 publications. Access requires subscription.

- **Science Direct**
  http://www.sciencedirect.com/
  Good resources for online articles - access over 1,500 scientific and technical peer-reviewed journals. Search over 40 million abstracts from scientific articles. Link out to articles from over 120 other publishers. Access requires subscription.

Notes on Anecdotal, Proprietary, and Confidential Information

Several example company case studies are included in this bibliography. There are many others in existence, but they are confidential, not widely distributed and, thus, of limited value in a bibliography. These surveys can (if properly designed) provide a useful contextual framework for the subject under discussion. In addition, company surveys of managerial issues also contain references to organizational information, but again, in a contextual setting.

These studies frequently are done by major consulting firms, trade associations or professional organizations and are available only to participating companies. Generally, the organization doing the survey rolls up the statistics and provides limited interpretations of the information. These studies are rich in numbers, but can be sometimes questionable as to who did the input and whether sufficient care was exercised in filling out the forms. The annotations of the cited studies seek to reveal the breadth and depth of interview, survey or case study data used and acknowledge the limitations of the sources.

Company benchmark information on staffing size is some of the most sought after information. But even for surveys among companies in the same industry sector, meaningful comparisons can be tenuous at best. Staff size depends on a myriad of factors such as legacy issues, staff experience and work ethic, degree of outsourcing, extent of embedded EHS responsibilities, regulatory burden (which varies by location) and business management objectives (e.g., compliance or best in class) to name the most obvious factors. Rarely do surveys account for these variations. In the hands of inexperienced consultants or company EHS managers, this information easily can be misinterpreted or even misused.

Elizabeth Karan and Richard MacLean
Corporate Environmental Strategy: International Journal for Sustainable Business
Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

Also included are references to literature on business organization theory that do not specifically reference EHS organizational issues but contain useful information on general approaches that may be directly applicable to EHS structure and strategy.

Acknowledgements

This research was made possible from generous grants from a number of leading corporations. For a list of sponsors, see http://www.enviro-innovate.org/OIT_sponsors.htm. In addition, Professor Andrew Hoffman of Boston University graciously allowed unlimited access to his considerable reference library and Professor Ann Rappaport at Tufts University provided guidance and input on the conduct of this research.

Bibliography Index

Organizational Information Specific to EHS

Relevant General Business Organizational Information of Use to EHS managers

1. Management trends: the evolving role of EHS professionals

Chambers, Rebecca, (May 2001), "The Evolving Role of the Corporate Environmental Professional," *Pollution Engineering*, *33*(4), pp. 38.

Despite shallow discussion of the multiple responsibilities of EHS managers, the author provides useful website references of consulting firms, industry associations and governmental bodies that may be tapped for more information.

Karan, Elizabeth & Richard MacLean, (September 2003), "Corporate Environmental Organizations: Evolving Business Management Strategies," *Corporate Environmental Strategy: International Journal of Corporate Sustainability*, Vol. 10, Issue 8, pp. 2-145 to 2-153.

Describes the evolution of EHS organizations and makes prediction as to how they may evolve in the future.

MacLean, Richard, "Sustainable Careers," *Environmental Protection,* (Part 1: January-February 2003, pp. 14-16; Part 2: April 2003, pp. 12-14; and Part 3: September 2003, pp. 24-27.)

A three-part series on the future of environmental, health and safety professionals. Describes the current problems facing EHS professionals, including organizational and staffing issues.

MacLean, Richard, (October 2001), "The weakest link? How EH&S Professionals Keep Their Jobs During Tough Times," *The Green Business Letter*.

Argues that EHS professionals must learn to better demonstrate their business and strategic value to the firm. Offers examples of innovative cost-cutting environmental initiatives en-

acted by firms, with websites for further information. Further suggests that EHS professionals must play one of four key roles inside companies: strategist, coach, change agent or expert as well as ten "survival tips" for EHS managers.

MacLean, Richard, Dorothy Bowers, & William Sugar, (1998), "Leading Successful Environmental, Health, and Safety Organizations: Ten Recommendations for EHS Executives," *Corporate Environmental Strategy*, *5*(2), pp. 4-13.

Provides clear advice aimed at helping EHS managers increase their business and strategic value to the firm, explaining "what, why and how" for each prescribed action.

Moxen, John, & Peter A. Strachan, (Eds.), (1998), *Managing Green Teams: Environmental Change in Organizations and Networks* (UK: Greenleaf Publishing)

Reviews corporate and industry association approaches to coordinate different management functions in addressing environmental issues.

Nadler, Scott, (1998), "The Green Stairway: Surviving and Flourishing in Environmental Management," *Corporate Environmental Strategy*, *5*(2), pp. 14-21.

Proposes a six-stage framework for understanding how EHS managers need to adapt in a business climate in which corporate structure is dynamic. Advocates for regular self-assessment, reinvention of existing environmental programs and identifies certain associated risks.

Neuvelt, Carol Singer, (1999), "EH&S Preparation – Meeting the Needs of Hiring Managers," *Corporate Environmental Strategy*, *6*(4), pp. 407-414.

Based on a 1998 survey conducted by the National Association for Environmental Management, explores the increasing gap between the job requirements of EHS professionals, the skills of traditional managers with engineering, natural resource or science backgrounds and the emergence of business schools that incorporate environmental issues into their curriculum.

Port, Andrew L., (May 2001), "Line Blurs Between Professions," *Occupational Health & Safety*, pp. 72-76.

Notes of a five-year trend whereby professionals in the field increasingly are certified in both industrial hygiene and safety and the responsibilities of the two jobs that have merged into one position within firms looking to cut overhead costs.

Rice, Steve, (Summer 2003), "Commitment to Excellence: Practical Approaches to Environmental Leadership," *Environmental Quality Management*, pp. 9-22.

Overview of the first day's proceedings of a forum in an annual series held at Consolidated Edison's Learning Center in New York in October 2002 that brought together 37 senior environmental professionals from 20 companies. Summarizes presentations of three companies' approaches to environmental management, including how different organizational structures divide responsibilities for an EMS auditing, and strategic development.

Shelton, Richard D., (1996), "Cutting Through the Green Wall," *Across the Board*, *33*(6), p. 32.

Identifies the causes and effects of the "green wall" phenomena and provides basic steps for EHS management including better integration with a company's business functions through financial valuation and staff rotation as well as

establishment and follow through of strong service orientation, rigorous metrics and high expectations.

2. Outsourcing and shared services: approaches to EHS management

Arthur D. Little, (1996), *Environmental, Health, and Safety Reengineering* (Cambridge, MA)

Overview of basic issues involved in re-engineering EHS organizations advocating for tailored solutions where decentralization and shared services designs drive process improvements and have implementation plans and performance measures that are integrated with business strategy.

Aspray, Richard T., (2001), "Outsourcing EH&S Services" (Clayton Group Services, Inc.) Available from http://www.claytongrp.com/outsourceehs_art.html.

Outlines EHS services Clayton Group Services, Inc. provided to Lockheed Martin, Lucent Technologies and others.

Evangelista, A.S., & Lisa A. Burke, (March-April 2003), "Work Redesign and Performance Management in Times of Downsizing," *Business Horizons*, pp. 71-76.

Provides an operational framework for reconfiguring the work duties of remaining workers after organizational downsizing while maintaining performance management.

Forst, Leland I., (1999), "Outsourcing: You Get What You Ask For," *Journal of Business Strategy*, 20(1), pp. 11-14.

Argues that outsourcing decisions require thorough evaluation of the services to be outsourced in order to more strategically assess needs and identify value of outsourcing versus internal consolidation and standardization.

Kakabadse, Andrew, & Nada Kakabadse, (2000), "Sourcing: New Face to Economies of Scale and the Emergence of New Organizational Forms," *Knowledge and Process Management*, 7(2), pp. 107-118.

Provides an overview of different shared services sourcing arrangements and reviews the costs and benefits of outsourcing.

Kakabadse, Andrew, & Nada Kakabadse, (2000), "Outsourcing: A Paradigm Shift," *Journal of Management Development*, 19(8), pp. 668-778.

In-depth overview of outsourcing and its drivers, including review of current practices in private and public sector organizations with a focus on IT industry.

MacLean, Richard, "Shared Services: A Survey of Industry Practices within Environmental, Health and Safety Organizations," (Competitive Environment, Inc., September 1998, 48 pages). Controlled distribution report, see http://www.competitive-e.com/Abstracts.htm#Organizational_Design.

Provides a detailed description of the advantages and disadvantages of EHS shared service organizations based on interviews with EHS managers in twenty-seven multinational corporations, the author's own experiences in forming a shared service group, discussions with senior EHS colleagues, and published literature.

Martin, Bruce A., & Ellen I. McDermott, (Winter 2001), "Outsourcing: A Growing Trend in EHS Management," *Environmental Quality Management*, pp. 45-50.

Identifies different types of EHS outsourcing arrangements and discusses general effects on cost, staffing and quality.

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

Pierce, David F., (January 1997), "The New Rules for Outsourcing Safety and Health Services," *Occupational Hazards*, pp. 57-59.

Provides practical tips for choosing consultants. Aimed at managers who have recently acquired responsibility for safety and health services due to organizational downsizing.

Posson, Mark, (Spring 1996), "The Risks and Benefits of Outsourcing Environmental Management," *Corporate Environmental Strategy*, pp. 5-11.

Survey of companies' experience finds functions such as site assessment, cleanup and permitting typically outsourced, whereas compliance programs usually are kept in-house. Organizational employment philosophies were a primary influence on the outsourcing decision in cases used as a tool to curb staff additions. Overall results of outsourcing mixed, resulting in decreased compliance and increased cost amongst some firms.

Simke, John, (February 2000), "Emerging Trends in Outsourcing," *CMA Management*, pp. 26-27.

Suggests outsourcing is increasing in importance and will be used more strategically by large corporations in the future than just as a cost-cutting tool.

Stephan, Curtis, (1998), "The Financial Benefits to Building Outsourcing Partnerships," *Corporate Environmental Strategy*, 5(3), pp. 65-70.

Case example of Baxter International, Inc.'s experience outsourcing hazardous waste management and industrial hygiene service based on facility-level decision making. Provides a thoughtful review of the pros and cons of outsourcing EHS functions that focuses on managing costs (which initially can be high due to learning curve), liability and turnover.

Vining, Aidan, & Steven Globerman, (1999), "A Conceptual Framework for Understanding the Outsourcing Decision," *European Management Journal*, 17(6), pp. 645-654.

Provides a framework of outsourcing costs: production costs (i.e., for purchase), bargaining costs (i.e., contract negotiation), and opportunism costs (i.e., bad faith actors). Concludes that while outsourcing can reduce production costs, complexity of the outsourced product/service and high-level competition among suppliers can increase the latter two costs.

Wilson, John, (April 2000), "Revisiting the Shared Services Approach to EH&S Management," *Business Strategy and the Environment*, pp. 3-6.

Reviews shared services management trend. Further suggests companies successful in implementing EHS shared services carefully balanced centralization and decentralization of EHS expertise; differentiated between business services and shared EHS functions; and made investments beyond technical competence to business skills.

3. Organizational structure: EHS staffing frameworks

Atkinson, Simon, Anja Schaefer, & Howard Viney, (2000), "Organizational Structure and Effective Environmental Management," *Business Strategy and the Environment*, *9*, pp. 108-121.

Provides organizational charts and analyzes five models of environmental management structures in the UK electricity industry to conclude that organizational structure influences corporate perceptions and strategies on environmental issues. Compares centralized and decentralized approaches and identifies the need for a centralized environmental de-

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

partment even within a divisional corporate structure.

Business for Social Responsibility, (2002), "Designing a CSR Structure – A Step-by-Step Guide Including Leadership Examples and Decision-Making Tools," (San Francisco, CA, 27-page booklet)

Provides a suggested framework for structuring corporations around corporate social responsibility principles.

Chemical Week, "Decentralizing Environmental Burdens," *Chemical Week*, (March 3, 1982) p. 37.

Anecdotal look at American Cyanamid's restructuring to decentralize control of environmental responsibilities as a departure from the norm within the chemical industry.

Cramer J., (1998), "Environmental Management: from 'Fit' to 'Stretch'," *Business Strategy and the Environment*, 7, pp. 162-172.

Cites a research study suggesting that as a company's environmental policy becomes more ambitious there is a shift away from a top-down, centralized management structure toward a decentralized, "holistic" structure where environmental responsibilities permeate all job functions.

The Conference Board, (1970), *Corporate Organization for Pollution Control* (New York: The Conference Board)

Based on survey data from 89 U.S. and Canadian companies in 12 industries, this early study describes the various approaches to organizing pollution control responsibilities within the corporate structure. Provides a historical data point with which to compare and contrast how organizations have evolved since 1970. Reviews managerial backgrounds, responsibilities and command chains and provides 10 case examples that include organizational charts and descriptions of job functions.

The Conference Board, (1995), *Environmental Alliances: Critical Factors for Success* (New York: The Conference Board)

Summarizes data from a 1993 survey of 100 senior EH&S executives on the role of multi-stakeholder alliances in corporate strategy and activities. Provides case studies of three "win-win" collaborative environmental initiatives between the business, government and non-profit communities. Identifies guidelines for firms seeking to engage in environmental alliances and sustainable development strategies.

Dillion, P., & K. Fischer, (1992), *Environmental Management in Corporations: Methods and Motivations* (Medford, MA: The Center for Environmental Management, Tufts University) Chapter 3, pp. 26-34.

Finds that staffing level of EHS departments is not proportional to company size, rather it's dependant on level and severity of risk, degree to which other staff departments (i.e., legal, public relations or engineering) are involved in environmental affairs, companies use of committees in developing programs and policies and the degree of line responsibility over EHS issues.

Epstein, Marc, (1996), *Measuring Corporate Environmental Performance – Best Practices for Costing and Managing an Effective Environmental Strategy* (Chicago, IL: Irwin) pp. 53-62.

Uses case examples to discuss the evolution of EHS staffing, from a centralized structure to a decentralized one, and the current trend toward a hybrid approach where day-to-day compliance and operations decisions are made

at the facility level, with corporate staff acting in a consulting and strategic role.

Ferry, Ted S., (1992), *Safety and Health Management Planning* (New York: Van Nostrand Reinhold) pp. 68-71.

Out-of-print book provides guidelines for safety and health staff size, still used by the National Safety Council and includes staff-sizing ratios for collateral duty persons, safety/health committees, full-time professionals and assistants based on number of employees

---

Fryxell, G.E., & M. Vryza, (1999), "Managing Environmental Issues Across Multiple Functions: An Empirical Study of Corporate Environmental Departments and Functional Coordination," *Journal of Environmental Management*, *55*, pp. 39-56.

Offers broad observations on the relationship between the level of integration of EHS departments with other corporate functions (i.e.. production, accounting and finance, legal) and a company's environmental performance. Based on statistical analysis of survey data from major U.S. companies compiled in the mid-1990s.

Gladwin, Thomas N., (1977), *Environmental Planning and the Multinational Corporation* (Greenwich, CT: JAI Press) pp. 138-171.

Provides a look at early EHS staffing units based on interview data with senior management from multinational corporations representing the petroleum, chemical and metal industries. Reveals small staffing units (five people or less) that typically reported directly to president, senior VPs, or research director; corporate-level environmental managers dominated by engineers and natural scientists; decentralized management systems forcing decision-making on line managers; and a general lack of both public and internal environmental policies.

Grimaldi, John, & Rollin Simmons, (1989), *Safety Management* (Fifth Edition, Chicago IL: Irwin Homewell) pp. 106-111.

Presents staffing rule of thumb ratio of one full-time safety specialist for every 2,000 employees with exceptions based on the mechanization of the plant and nature of hazardous materials handled. Cautions of the diminishing returns from creating large departments with lots of support staffs versus the value of smaller units staffed by full-time experts.

Hoffman, Andrew J., (Winter 1992-1993), "Teaching Old Dogs New Tricks: Creating Incentives for Industry to Adopt Pollution Prevention," *Pollution Prevention Review*, pp. 1-11.

Overview of the pros and cons of adopting voluntary, mandatory and market-based programs for environmental management that suggests organizational restructuring is as important as technological innovation in determining the firm's success with pollution prevention.

Hoffman, Andrew J., (March-April, 1996), "Environmental Management Withers Away," *Tomorrow*, pp. 60-62.

Views decentralization as an evolutionary outcome as firms integrate environmental concerns with business strategy rather than a managerial trend. Argues that as the prominence of environmental management increases the need for large centralized departments to manage these issues lessens and, instead, environmental responsibilities will be diffused and integrated into different functional levels of the firm.

Lund, Leonard, (1974), *Corporate Organization for Environmental Policymaking* (New York: The Conference Board)

Early study of corporate environmental concerns, based on a survey of 516 senior executives, reviews the functionality and provides organizational diagrams of 28 different environmental management structures. Provides a historical data point with which to compare and contrast how organizations have evolved.

MacLean, Richard & Cord Jones, (April 2000), "Should E be Separate or Combined With H&S?," *EM Magazine*, Air & Waste Management Association, Pittsburgh, PA, pp. 9-14.

Addresses the advantages and disadvantages of combining environmental functions with safety and health functions.

Morrison, C., (1991), *Managing Environmental Affairs: Corporate Practices in the U.S., Canada, and Europe* (New York: The Conference Board)

Provides a comparative assessment of the business and regulatory environment in the different countries as well as examples of corporate responsibility initiatives. Based on survey data of business executives from 353 companies in the U.S., Canada and Europe, discusses policy development strategies and corporate organizational structure enacted to address key EH&S concerns.

Petulla, Joseph A., (1983), "Environmental Management: Defining the Profession," *Environment*, *25*(8), pp. 2-5.

Recommends an organizational structure that elevates the status and clarifies the role of environmental managers based on interview data and professional experience.

Robbins, Peter Thayer, (2001), *Greening the Corporation: Management Strategy and the Environmental Challenge* (Sterling, VA: Earthscan) Chapter 4.

Examines how different corporate cultures manifest themselves structurally, comparing diffusion versus integration of EHS responsibilities, through a case study of the experiences of ARCO and Shell Oil.

Schwartz, Irvin, (February 14, 1973), "More of Management Moves into the Environmental Picture," *Chemical Week*, 57.

Identifies still relevant concerns facing environmental managers including of lack of staffing resources as well as unclear authority within operations and corporate management structure.

Smith, James Fielding, (1998), "Does Decentralization Matter in Environmental Management?" *Environmental Management*, *22*(2), pp. 263-276.

Concludes that, compared with a centralized structure, decentralized environmental management is partially more efficient in the permitting process, but the unit cost of regulatory compliance is higher without being more effective overall. Based on multiple regression analysis of questionnaire data from 39 state NPDES agencies.

United Nations, (1993), *Environmental Management in Transnational Corporations* (New York: United Nations) pp. 47-59.

In-depth discussion of management styles and organizational structures of multinational corporations. EHS functions seen as line responsibility, except within Japanese firms where EHS functions more incorporated in strategic planning and market research. European companies tended to have internationally oriented programs, whereas Japanese firms were

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

guided by local and regional standards and only one North American firm directly discussed application of international standards.

Weaver, Grace, (1996), *Strategic Environmental Management – Using TQEM and ISO 14000 for Competitive Advantage* (New York: John Wiley and Sons) pp. 112-114.

Observes that the level of centralization versus decentralization in EHS structure is less important than the degree of access the EHS organization has to top management. Refers to a 1994 Price Waterhouse study of 445 companies, half of which have environmental managers report to the CEO or other senior management and 40 percent have board level involvement in environmental oversight.

Weiler, Ernest D., Lynn D. Johnson, & Philip G. Lewis, (Autumn 2003), "Challenges in Merging Environmental, Health, and Safety Programs after Corporate Acquisitions," *Environmental Quality Management*, pp. 19-24.

Reviews different structures for post-merger integration of EHS functions and outlines an "integration plan" designed to smooth the transition.

4. Case Studies of Corporate EHS Management

Fineman, Stephen, (Ed.), (2000), *The Business of Greening* (London: Routledge. Anja Schaefer & Brian Harvey), pp. 170-188: "Agents of Change in Corporate 'Greening': Case Studies in Qater and Electricity Utilities."

Details the strategic and organizational change processes followed by six European companies engaging in environmental management and explores role of top and senior management, environmental managers and environmental champions. Finds environmental management choices influenced largely by broader social and economic environment (public opinion and legislation).

Haveman, Mark, & Mark Dorfman, (1999), "Early Efforts at Integrating Business and Environment at SC Johnson," *Corporate Environmental Strategy*, 6(1), pp. 4-13.

Suggests that while EHS departments play a critical consulting role, providing business managers with specialized information and analysis, the integration of environmental issues into business systems and decisions decreased the need for a separate EHS function over time and a new brand of EHS professional is in the making: a hybrid of operations and environmental manager.

Hendricks, James R., Jr., (2000), "Beyond Due Diligence in Acquisitions: An EHS Life Cycle Analysis Tool," *Corporate Environmental Strategy*, *7*(4), pp. 400-405.

Duke Energy Corporation, VP of Corporate EHS describes the post-merger creation of an integrated EHS management group and the strategic development of an EHS management system that guided the new company's early years.

Hoffman, Andrew J., (Autumn 1994), "Organizing Change and the Greening Process at Amoco," *Total Quality Environmental Management*, pp. 1-21.

Provides an in-depth review of the corporate environmental strategy and EHS structure at Amoco over a three decade period.

Maxwell, James, Sandra Rothenberg, Forrest Briscoe, & Alfred Marcus, (1997), "Green Schemes: Corporate Environmental Strategies and Their Implementation." *California Management Review*, *39*(3), pp. 118-134.

Examines the environmental strategies and implementation schemes of three companies (Volvo, Polaroid and Proctor & Gamble) and

compares alternative structures, guidelines, incentives and tools.

Percy, Steve W., (2000), "Environmental Sustainability and Corporate Strategy: Why a Firm's 'Chief Environmental Officer' Should be its CEO," *Corporate Environmental Strategy*, *7*(2), pp. 194-202.

Former Chairman and CEO of BP America, Inc., offers a single management model for integrating sustainability into corporate strategy. This is based on BP's experience in reducing its carbon dioxide emissions in which line management is directly responsible for integrating profit and sustainability goals and EHS managers act in an advisor, facilitator and consultant role.

Preston, Lynelle, (2001), "Sustainability at Hewlett-Packard: From Theory to Practice," *California Management Review*, *43*(3), pp. 26-37.

Case study of HP's reinvention of its product stewardship program to incorporate environmental sustainability into its business strategy. Discusses the processes of building a team of internal environmental champions and creating strategic linkages between EHS, government relations and marketing departments.

Rosenberg, Walt, (1998), "Defining Environmental Leadership at Compaq Computer Corporation," *Corporate Environmental Strategy*, *5*(3), pp. 4-12.

Compaq's Environmental Affairs Director outlines the evolution of EHS management and strategy from regulatory compliance to life-cycle assessment. EHS staff role is management facilitation and accountability, company's EHS headcount is small and line managers are directly responsible for program implementation and success.

Sandborg, Verie, (2000), "Developing Global Environmental, Health and Safety Principles," *Corporate Environmental Strategy*, *7*(2), pp. 170-175.

Environmental manager at Baxter International, Inc. discusses the challenges of implementing a global EHS program that led to decentralization of EHS operations that is not top-down or corporate driven, but managed directly by EHS staff overseas at the country and facility level and draws on support from regional strategic and operations teams.

Stangis, David, (February 2000), "Realizing the Value of EH&S Integration at Intel Corporation," *The Synergist*, pp. 31-34.

Case example describes Intel's matrix structure of environmental management where functional and strategic steering teams of corporate staff and operational staff define facility-level performance improvements and indicators.

Tierney, Robert J., (2002), "Green by Design: Factor Ten Goals at Pratt & Whitney," *Corporate Environmental Strategy*, *9*(1), pp. 52-61.

Pratt & Whitney manager tracks the evolution of EHS management from compliance oriented to a strategic, multi-team function that focused on new products, technological innovation and supply chain management. Provides partial organizational chart identifying command chain and accountability.

Wilmshurst, Trevor D., & Geoffrey R. Frost, (1997), "Environmental Management: Evidence of an Australian Corporate Response," *Eco-Management and Auditing*, *4*, pp. 127-134.

Survey results of CEOs from Top 500 Australian firms reveal that environment management responsibility most commonly resides within affected operational departments, though some companies took a proactive ap-

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

proach and created separate environmental departments; in others legal and public relations staff were most involved in dealing with these issues suggesting while environment is seen as a legitimate concern facing companies, it is not commonly perceived as crucial to a firm's business strategy.

Weiler, Ernest D., Lynn D. Johnson, & Philip G. Lewis, (Winter 2003), "Successfully Implementing EHS Restructuring," *Environmental Quality Management*, pp. 19-24.

Examines advantages and disadvantages of different organizational models in the Rohm and Haas EHS restructuring.

5. Corporate strategy: analysis of environmental management models

Azzone, Giovanni, Umberto Bertele, & Giuliano Noci, (1997), "At Last We Are Creating Environmental Strategies Which Work," *Long Range Planning*, *30*(4), pp. 562-571.

Offers a framework for analyzing the competitive and management implications of environmental issues based on four variables (culture, strategic attitude, available resources and employee competency) that determine the success of different strategies within a firm.

Elkington, John, (2002), "Corporate Strategy in the Chrysalis Economy," *Corporate Environmental Strategy*, 9(14), pp. 5-12.

Categorizes environmental management practices into four types based on the sustainability of the corporate business model; offers a broad five-stage evolutionary process/model for incorporating environmental issues into corporate strategy.

Friedman, Frank, (2003), *Practical Guide to Environmental Management* (Environmental Law Institute, Washington, DC, 9th edition)

This classic environmental management reference contains several chapters with relevant organization and staffing information. For example, Chapter 4: Organization and Staffing for Environmental Management (pp. 161-191) and Chapter 3: Environmental Management in the 21st Century (pp. 59-160).

Hass, Julie L., (1996), "Environmental ('Green') Management Typologies: An Evaluation, Operationalization and Empirical Development," *Business Strategy and the Environment*, 5, pp. 59-68.

Critique of seven environmental management strategy models based on interview data collected from eight Norwegian companies that finds, while models may help managers conceptualize the "greening process," corporate actions do not consistently reflect the stages or evolutionary process proffered by such models.

Hoffman, Andrew J., (2001), "Linking Organizational and Field-Level Analysis: The Diffusion of Corporate Environmental Practice," *Organization & Environment*, *14*(2), pp. 133-156.

Offers a new model for analyzing corporate environmental management that looks at the interplay of internal and external drivers that influence organizational behavior.

Hunt, Christopher B., & Ellen R. Auster, (Winter 1990), "Proactive Environmental Management: Avoiding the Toxic Trap," *Sloan Management Review*, pp. 7-18.

One of the earliest analyses of corporate environmental management practices, the "stage model" approach continues to provide the foundation of more recent research and dialogue on this topic. Provides basic managerial advice and offers a six-step process to guide the implementation of a more proactive environmental management program.

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

Klaver, Jacques, & Jan Jonker, (2000), "Changing Corporate Environmental Management: Development of New Management Systems," *Eco-Management and Auditing*, *7*, pp. 91-97.

Discusses the implications of changing societal values on companies' handling of environmental issues and suggests how firms will need to respond to these pressures. Concludes there is a need for diverse management models that consider organizational structure, culture and strategy in an integrated way.

Kolk, Ans, & Anniek Mauser, (2002), "The Evolution of Environmental Management: From Stage Models to Performance Evaluation," *Business Strategy and the Environment*, *11*, pp. 14-31.

An extensive academic review comparing 50 environmental management models and the evolution of academic thought toward identifying measurable environmental performance indicators.

Lawrence, Elaine, Duncan Andrews, Brian Ralph, & Chris France, (2002), "Applying Organizational Environmental Tools and Techniques," *Corporate Social Responsibility and Environmental Management*, *9*, pp. 116-125.

Provides a general model for understanding the role of environmental management tools and techniques and offers guidance toward implementing appropriate practices within organizational business functions and processes.

MacLean, Richard, (October 2001), "Countdown to Zero: Environmental Staffs are Becoming Smaller, But What is the Ideal Size?," *Environmental Protection,* pp. 57-59.

Describes the factors that effect staffing size.

MacLean, Richard, (Winter 2003), "Superior Environmental Health and Safety Performance: A Peer Survey of What It Is and Which Corporations Have It," *Environmental Quality Management*, Vol. 13, No. 2, pp. 13-20.

Describes the difficulty comparing the performance among companies since there is no universally agreed-upon metric set within each industrial sector. As a result, it is difficult for an organization to demonstrate it is providing superior services and adding value to the company.

MacLean, Richard, (October 2001), "EHS, By the Numbers," *E-Factor: The Green Business Letter*, p. 8.

Describes why benchmark surveys comparing staffing levels are not reliable.

MacLean, Richard et. al., (May - July 1999), "Right-Sizing Organizations for Quality," Three-part Series appearing in *EM Magazine*, Air & Waste Management Association, Pittsburgh, PA.

Part 1, Right-Sizing EHS Organizations, (May 1999), Co-authored with Rick Monty, pp. 19-31.

Part 2, Optimizing the Organization's Structure, (June 1999), Co-authored with Rick Monty and Kyle Dotson, pp. 19-33.

Part 3, Making the Business Case to Executive Management, (July 1999), Co-authored with Rick Monty, pp. 21-29.

A "how to manual" of how to properly size and staff EHS organizations.

Myklebust, Egil, (April 12-16, 1999), *Leadership and Transformation: Strategies for Organiza-*

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

tional Change (The Prince of Wales' Business & the Environment Program, Sixth Senior Executives' Seminar, Cambridge, UK)

President and CEO of Norsk Hydro ASA provides an overview of the evolution of strategies for organizational environmental change, from compliance driven and pollution-prevention focused to business integration and sustainability.

Organization Resources Counselors, (August 2003), *ORC S&H Organization Survey,* ORC, Washington, DC.

One of the most recent and comprehensive surveys available on safety and health organizations. Based on responses from sixty five major corporations. Sometime in the future an environmental survey will be conducted to supplement this heath and safety survey. Study distribution is restricted to members of ORC. Earlier studies of EHS were done in 1995 and in 1998.

Roome, Nigel J., (Ed.), (1998), *Sustainable Strategies for Industry: The Future of Corporate Practice* (Washington, D.C.: Island Press)

Hoffman and Ehrenfeld (pp. 55-74) track the emergence of current corporate value systems through an evolutionary model of corporate environmental management whereby environmental responsibility was integrated from the periphery of organizational structure to the inner core, and diffused out again to impact all aspects of corporate operations.

Tinsley, Stephen, (2002), "EMS Models for Business Strategy Development," *Business Strategy and the Environment*, 11, pp. 376-390.

Investigates whether there is a "good fit" between a given EMS model and business strategy by examining how management style, communication, company culture and organizational structure act as barriers to successful implementation of four different models of EMS adoption.

Wall, Jerry, & Laurence Jauch, (Eds.), (1991), *Academy of Management, Best Papers Proceedings 1991* (Miami, Florida: AM), Daniel Greening, (pp. 331-335). "Organizing for Public Issues: Environmental and Organization Predictors of Structure and Process."

Yang, Yilun & Richard MacLean, (Spring 2004), "A Template for Assessing Corporate Performance: Benchmarking EHS Organizations — A Matrix-Based Selection System for Identifying 'Best-in-Class' EHS Organizations," *Environmental Quality Management*, Vol. 13, No. 3, pp. 11-23.

Provides a matrix that can be used to select companies for benchmarking best in class. The matrix is specifically set up to evaluate top performing EHS organizations. The top 25 EHS organizations are ranked.

6. Organizational culture: corporate decision-making and EHS management strategies

Fischer, Kurt, & Johan Scot, (Eds.), (1993), *Environmental Strategies for Industry* (Washington, DC: Island Press)

Provides three-part discussion that: (1) explores different perspectives of the corporate environmental challenge, (2) presents rich data from case studies and surveys on the driving forces behind changes in corporate behavior and (3) looks in-depth at the role of public opinion, government and market forces in facilitating corporate greening.

Hoffman, Andrew J., (1997), *From Heresy to Dogma: An Institutional History of Corporate Environmentalism* (San Francisco, CA: New Lexington Press)

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

In-depth look at how and why corporate environmentalism evolved from denial to sustainability and how organizational structure has changed in response to new priorities. Proposes that, with the maturation of corporate environmentalism, responsibility diffuses throughout the corporate structure and the importance of a separate EHS department is diminished, but not eliminated.

Hoffman, Andrew J., (2000), *Competitive Environmental Strategy: A Guide to the Changing Business Landscape* (Washington, DC: Island Press)

Contains extensive references to organizational change.

MacLean, Richard & Romi Gottfrid, (Fall 2000), "Corporate Environmental Reports: Stuck Management Processes Hold Back Real Progress," *Corporate Environmental Strategies*, Vol. 7, No. 3, pp. 244-255.

Provides a description of how organizational issues such as "silos" and poor communication among functional departments cause problems when preparing credible corporate reports.

MacLean, Richard, (November/December 2002), "Brown Bricks: Often It's an Individual Rather Than 'The System' That Holds Back Progress," *Environmental Protection*, pp. 12-15.

Describes how individuals with dysfunctional personalities can interfere with progress, regardless of the organizational structure or staffing level.

Miller, William, (1998), "Cracks in the Green Wall," *Industry Week*, *247*(2), pp. 58-69.

Illustrates that, despite increased recognition of the importance of beyond compliance environmental measures, institutional barriers and profit-driven motives continue to prevent the integration of business and environmental considerations based on Industry Week survey of EH&S managers from approximately 1,000 manufacturing firms.

Ramus, Catherine A., (2001), "Organizational Support for Employees: Encouraging Creative Ideas for Environmental Sustainability," *California Management Review*, *43*(3), pp. 5-105.

Suggests that the gap between good policies and sound practices are due in large part to the lack of employee involvement, particularly line managers, and ownership in initiating environmental innovations. Identifies the lack of senior executive support, lack of environmental training and lack communication as the main impediments to more innovations within firms. Based on survey data.

Richards, Deanna J., (Ed.), (1997), *The Industrial Green Game: Implications for Environmental Design and Management* (Washington, DC: National Academy Press), Walter R. Stahel, (pp. 91-100). "The Functional Economy: Cultural and Organizational Change."

Sexton, Ken, Alfred A. Marcus, K. Williameaster, & Timothy Burkhardt, (Eds.), (1999), *Better Environmental Decisions: Strategies for Governments, Businesses and Communities* (Washington DC: Island Press)

Provides examples that typify the spectrum of corporate environmental actions. A strong corporate vision and an organizational commitment to invest in developing an environmental advantage are identified as key requirements for moving toward sustainability (Hart, pp. 77-90). Describes key beliefs, norms and accompanying organizational structure of the different historic eras of corporate environmentalism and evaluates ten current managerial approaches based on their

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

capacity to foster structural change (Ehrenfeld, pp. 223-244). Discusses the implication of increasing external pressures on corporate environmental efforts and suggests a five-phase process for managing organizational change to create a culture, process and structure for better environmental management (Hoffman, pp. 245-266).

Shanley, Agnes, (November 1993), "Pollution Prevention: Reinventing Compliance," *Chemical Engineering*, pp. 30-43.

Finds that while most U.S. firms do a majority of their pollution prevention (P2) work and analysis in-house, as much as half of their engineering is outsourced. In contrast, European firms do less than two-thirds of their P2 work in-house, using consultants primarily for life cycle and operations analysis. Based on results of an informal survey by *Chemical Engineering* of corporate environmental directors and plant managers at chemical processing industry firms in the U.S. and Europe.

Shelton, Robert D., & Jonathan B. Shopley, (1995), *Hitting the Green Wall* (Cambridge, MA: Arthur D. Little)

Reveals how EHS management structures have contributed to creating the "green wall" and suggests several basic measures and concrete actions to break through this organizational barrier. Defines the "green wall" phenomena as the reticence of firms to move beyond compliance-based initiatives and make strategic commitments to integrate environmental management and business functions.

Wehrmeyer, Walter, & Kim Parker, (1995), "Identification, Analysis and Relevance of Environmental Corporate Cultures," *Business Strategy and the Environment*, *4*, pp. 145-153.

Concludes that firms adopting collaborative management styles and team approaches to decision-making more often had better environmental performance, based on data collected from questionnaires to five UK paper production firms correlating corporate culture and environmental performance.

Welford, Richard, (Ed.), (1998), *Corporate Environmental Management: Systems and Strategies* (London: Earthscan Publications Ltd., Second edition) pp. 50-54.

Provides a template of a typical EMS management structure and outlines organizational factors that commonly constrain EMS development, including lack of senior management commitment, status of environmental management within firm, value of environmental services to company and cost.

Wycherley, Ian M., (1997), "How Can Environmental Managers Improve Control?" *Eco-Management and Auditing*, *4*, pp. 1-6.

Presents a varying range in managerial attitudes towards falsifying information, outsourcing, negotiating pollution prevention targets and communication of environmental activities. Based on results of interviews with 20 environmental managers on their experience implementing environmental management systems.

7. Useful general business organizational information

Adler, Paul, (Fall 2003), "Making the HR Outsourcing Decision," *MIT Sloan Management Review*, pp. 53 – 60.

Although this article is specific to human resources, the process is similar to that which a manager might use for EHS.

Alexander, Marcus, & David Young, (1996), "Outsourcing: Where's the Value?" *Long Range Planning*, 29, pp. 728-730.

Vol. 11, Issue 7 (July/August 2004) ISSN 1066-7938

Critique of faddish use of outsourcing as a managerial tool that suggests it be evaluated on the basis of value creation rather than cost cutting.

A.T. Kearney, Inc., (April 1994), *The Team-based Organization* (Chicago, IL)

Thirty-two page booklet that describes the nature of team-based organizations.

Bryce, David J., & Michael Useem, (1998), "The Impact of Corporate Outsourcing on Company Value," *European Management Journal*, *6*(6), pp. 635-643.

Provides a critical look at typical management rationales for outsourcing: cost savings, improved service performance, strategic advantage.

Chesbrough, Henry W. & David J. Teece, (August 2002), "Organizing for Innovation: When Virtual is Virtuous," *Harvard Business Review*, pp. 127-134.

Discusses the impact of technology on communications and the creation of virtual enterprises and increased outsourcing. Argues that when it comes to innovation, virtual networks do more harm than good.

The Conference Board, (1999), *The Future Organization: New Leadership and Employee Roles* (New York: The Conference Board).

The Conference Board, (1999), *Implementing a Post-Merger Integration* (New York: The Conference Board).

The Conference Board, (1999), *Organizing for Global Competitiveness: The Corporate Headquarters Design* (New York: The Conference Board).

The Conference Board, (1999), *Post-Merger Organizations Handbook* (New York: The Conference Board)

Drucker, Peter F., (1992), "The New Society of Organizations," *Harvard Business Review*, Reprint 92503.

Provides a broad description of the evolution of corporate organizations and their relationship to society.

Goold, Michael, & Andrew Campbell, (March 2002), "Do You Have a Well-Designed Organization?" *Harvard Business Review*, pp. 117-124.

Presents managerial tool to evaluate existing organizational design or create new ones based on market advantage, corporate culture, value of corporate-level activities, accountability and flexibility.

Harvard Business School, (Revised June 30, 1995), *Note on Organizational Structure* (Cambridge, MA: Harvard University) Reprint 9-491-083.

Provides a description of basic organizational structures and a bibliography of relevant publications.

Kakabadse, Andrew, & Nada Kakabadse, (2002), "Trends in Outsourcing: Contrasting USA and Europe," *European Management Journal*, *20*(2), pp. 189-198.

Reviews survey of current outsourcing practice in U.S. and European companies. Finds that in the U.S., outsourcing generally is used as an operational tool with decisions made by senior line and functional managers, while in Europe senior management regards outsourcing as a strategic decision. Both U.S. and

European companies prefer to transfer staff to supplier, with U.S. companies generally pursuing redundancies more aggressively through a mix of HR strategies.

Lucenko, Kristina, (1996), *Shared Services: Achieving Higher Levels of Performance* (New York: The Conference Board).

Not specific to EHS, describes company practices and experiences with shared services-type organizations.

Oxman, Jeffrey A. & Brian D. Smith, (Fall 2003), "The Limits of Structural Change," *MIT Sloan Management Review*, pp. 77-82.

Makes the compelling case that organizational charts are increasingly irrelevant and do not reflect how work actually is done.

Pinchot, Gifford, & Elizabeth Pinchot, (1993), *The End of Bureaucracy and the Rise of Intelligent Organization* (San Francisco, CA: Berret-Koehler Publishers) Chapter 9, pp. 167-191.

Provides case study of reorganization of an internal law department with outsourcing and insourcing advice as well as checklist relevant to EHS organizations.

Quinn, James B. & Fredrick G. Hilmer, (Summer 1994), "Strategic Outsourcing," *MIT Sloan Management Review*, Reprint 3544.

Examines core competencies and their influence over make or buy decisions. Examines the strategic risks and benefits of outsourcing.

Corporate Environmental Strategy:

International Journal for Sustainable Business

(ISSN: 1066-7938)

The longest running publication focusing on business sustainability, *Corporate Environmental Strategy: International Journal for Sustainable Business* (*CES Journal*), is now in its 11th year of publication. *CES Journal* is published in a loose leaf format and online (*CES Journal OnLine*™). A print subscription includes a sturdy three-ring binder which is tabbed to facilitate insertion of the contents from 10 issues each year. *CES Journal OnLine* includes current issues as well as issues from past volumes (Volume 8-2001, Volume 9-2002, and Volume 10-2003).

Editor in chief, Don Smith, provides a thought-provoking **Editorial** in each issue. The **Articles** and **Commentaries** are written by leading sustainability experts and opinion leaders. Some of those same leaders provide their unique insights in the journal's exclusive **Interviews**. In addition to the comprehensive **Table of Contents**, and **Calendar** which are updated with each issue, *CES Journal* includes **Legal & Legislative Developments**, and **In the News** sections, which focus on late-breaking news and trends about sustainable business. The **Resource Review** section now includes reviews of **Books**, **Conferences** and **Software**. *CES Journal OnLine* includes a powerful and fast search engine so that subscribers can easily locate content of interest.

Businesses are facing increasing attention and higher societal expectations relative to their "sustainability performance" from an entire host of stakeholders including regulators, policy-makers, investors, and non-governmental organizations to name but a few. *CES Journal* provides an important and lasting resource for those seeking to travel this often uncharted territory, all undertaken in the context of making your professional efforts more effective. Implementing one idea that you learn from the journal could more than pay for the cost of a subscription—a good ROI! Get *CES Journal* working for you today. Subscription pricing, sample content, and ordering information are available on the journal web site:

www.cesjournal.com

Corporate Environmental Strategy: International Journal for Sustainable Business (ISSN 1066 7938) is published by NetLogex, LLC, Boulder, Colorado, USA.