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Industrial Environmental Management:
An Annotated Bibliography of Practical Sources

Second Edition
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Notice

This report was prepared by Todd C. Edwards, doctoral candidate in the psychology program of the Claremont Graduate School, under the summer employment program of the U. S. Environmental Protection Agency. The report reflects the findings and conclusions of the author and not necessarily those of EPA or any other government entity. Mention of any company names, products, or processes does not constitute EPA endorsement.

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Annotated Bibliography on Industrial Environmental Management

I. Purpose

This bibliography identifies selected published or available written materials relevant to the design and effective operation of industrial environmental compliance and risk management programs. Materials were chosen for emphasis on practical environmental management issues from the perspective of the regulated organization as opposed to that of the regulator. Selections offer a range of viewpoints and should not be construed as prescriptive.

II. Content And Format

This bibliography contains a variety of materials--including journal articles, academic theses, reports, books, and conference proceedings--and is organized into the following categories:

III. Comments Or Questions

Any suggestions regarding future editions or questions regarding this bibliography can be directed to the Regulatory Innovations Staff, U.S. EPA (PM-223), Washington, DC 20460 or (202) 382-2726.

American Public Power Association (1988). A Manual For Electric Utilities: Environmental Compliance. Available from: American Public Power Association, 2301 M Street, NW, Washington, DC 20037.

ABSTRACT:

This manual is intended as a practical tool for electric utilities of all sizes to use in assessing, attaining, and maintaining compliance with federal environmental laws and regulations. It is designed primarily as a desktop reference for line personnel who run the utility on a day-to-day basis. It is also useful as a reference for management in setting up an environmental compliance program.

Andersen, G. H., Smith, A. C., & Daigle, L. T. (1989). An approach to occupational health risk management for a diversified international corporation. American Industrial Hygiene Association Journal, 50(4), pp. 224-228.

ABSTRACT:

A risk management program is presented which is effective in handling occupational health risks in a diversified multinational corporation. The three-step program of plant review involves initial assessment visits designed to determine the compliance status and degree of sophistication of the occupational health program. These assessments are followed by more formal assurance reviews which include consultation, training, and program support. Finally, formal surveillance reviews are conducted to verify compliance with respect to company and regulatory agency requirements. Each type of review requires planning and adherence to a standardized process to allow comparability of the information generated. Critical elements of this approach include senior management support, knowledge of applicable regulations, and communication of results. Reporting is done on several levels and is designed to communicate relevant information to management from line supervisors to the board of directors.

Arthur D. Little, Inc. (1981). A Survey of Environmental Planning. Available from: Arthur D. Little Inc., Center for Environmental Assurance, Acorn Park, Cambridge, MA 02140-2390.

ABSTRACT:

This report characterizes the diversity of practices identified in a 16 company survey, and emphasizes those planning features found to be exemplary, innovative, or interesting. It identifies six characteristics of environmental planning activities performed by the "cutting-edge" companies: 1.) long-range planning horizons; 2.) planning for risk as well as compliance; 3.) a clear and direct linkage between the environmental, safety, and health planning process and the CEO; 4.) strong interaction between corporate and division staffs; 5.) a formal channel through which the corporate environmental group contributes to the strategic planning process; 6.) driving forces which extend beyond compliance to social responsibility, preventative environmental policy, and a recognition that economic benefits can be realized.

Arthur D. Little, Inc. (1988). Environmental, Health, and Safety Policies: Current practices and future trends. Available from: Arthur D. Little, Inc., Center for Environmental Assurance, Acorn Park, Cambridge, MA 02140-2390.

ABSTRACT:

This is a survey of environmental, health, and safety policies of 28 major corporations. This information was augmented by a general knowledge of the policies in place at more than 50 other companies. The goal of this report was to analyze these policies in terms of their development and implementation. A diverse range of companies were represented in order to present findings about the range of policies as well as some conclusions about their commonalities.

Arthur D. Little, Inc. (1989). Developing a Corporate Approach to Environmental, Health, and Safety Crisis Management. Available from: Arthur D. Little, Inc., Center for Environmental Assurance, Acorn Park, Cambridge, MA 02140-2390.

ABSTRACT:

This report builds a case for companies to establish crisis management units, noting that only 38% of companies in the Fortune 1000 have such units in place. The primary objective of crisis management planning is to set up standards for the more routine aspects of response in order to free decision makers to focus on the tougher, unique aspects of a crisis should one occur. A second objective is to isolate crisis management from management of the company's ongoing business.

Barkenbus, J. N., & Barkenbus, B. D. (July, 1989). Industrial response to a waste minimization survey in Tennessee. Journal of the Air Pollution Control Association, 39(7), pp. 921-926.

ABSTRACT:

A survey of large Tennessee waste generators was carried out in the summer of 1987. It found that industry has begun to implement a number of waste minimization practices and that the overall attitude of generators toward waste minimization was positive. There were some statistically significant differences in the survey responses from generators of different volumes. These differences are important and indicate that among large waste generators, the larger have taken more significant steps to date than have smaller waste generators.

Boyer, B., Meidinger, E., Thomas, J., & Singh, J. (1987).
"Theoretical Perspectives On Environmental Compliance."
Available from: Regulatory Innovations Staff (PM-223),
Office of Policy, Planning, & Evaluation, United States
Environmental Protection Agency, Washington, DC 20460.

ABSTRACT:

The purpose of this paper was to identify how corporate compliance behavior may be affected by factors apart from those associated with deterrence theory. The limitations of deterrence theory are discussed, most notably, that it assumes all corporate decisions are made through an objective process which weighs economic costs and benefits of all available options. This view relegates the social context of regulation to the background. Internal (e.g., corporate culture) and external (e.g., social networks) social influences on corporate compliance are discussed.

Brody, M. (November 24, 1986). Listen to your whistleblower.
Fortune, pp. 77-78.

ABSTRACT:

This article advocates the use of a company 'ombudsman' to deal with employee complaints and concerns. This ombudsman would be a top manager whose sole function has become troubleshooting for the purpose of avoiding major organizational and publicity problems. Although the ombudsman function discussed here is a general one, this concept could also be readily applied to potential environmental problems.

Brunner, D. L., Miller, W., Stockholm, N. (1981). Corporations and the Environment: How Should Decisions Be Made? Stanford University, Graduate School of Business: Committee on Corporate Responsibility.

ABSTRACT:

Investigates how businesses in the 1980s can deal most effectively with difficult economic trade-offs and make decisions incorporating concern for the environment with a goal of economic growth. The authors provide an overview of approaches for addressing the environmental dilemmas businesses face today, not only in terms of their performance in the past, but in terms of their ability to function effectively in the 1980s and beyond. Specifically the book addresses: 1.) systems in place for dealing with environmental problems and the critical role of government; 2.) environmental issues facing corporate decision makers; 3.) the future of environmental decision-making; and 4.) the role and responsibilities of the individual in the decision-making process.

Campbell, M. E., & Glenn, W. M. (1982). Profit From Pollution Prevention. Available from: Pollution Probe Foundation, 12 Madison Avenue, Toronto, Ontario, Canada M5R 2S1.

ABSTRACT:

A compilation of industrial waste reduction and recycling methodologies. Documents hundreds of success stories of firms that have turned waste products into financial assets. The book is divided into the following groupings: 1.) waste management strategy information; 2.) pollution prevention opportunities (e.g., dry cleaning, electroplating, fly ash, sulphur, paints and coverings); and 3.) technology descriptions (e.g., waste recovery technologies, waste treatment and disposal technologies).

Caris, C. S. (February, 1980). Environmental management: New paradigm for old commitments. Resource Management and Optimization, 1(1), pp. 77-87.

ABSTRACT:

Various aspects of environmental management are explored: decision-making, impact assessment, cost-benefit analysis, tools and techniques of management, and implementation of environmental regulations.

DiMento, J. F. (1986). Environmental Law and American Business-Dilemmas of Compliance. New York, NY: Plenum Press.

ABSTRACT:

This book aims to address the question: "What policies will achieve the goal of persuading business to comply with environmental law?" This approach pays attention to the development of regulations and does not simply treat rules as inherently deserving of business obedience. Based on a review of the literature in many fields and on the results of interviews with corporate managers, regulatory officials, and members of environmental organizations, the book makes many recommendations for improving compliance.

DiMento, J. F. (1989). Can social science explain organizational noncompliance with environmental law? Journal of Social Issues, 45(1), pp. 109-132.

ABSTRACT:

Constructs a theoretical framework of factors which promote organizational compliance with environmental laws. Attributes of enforcement (e.g., perception of fairness), communication (e.g., continuity), and the actors involved (e.g., the firm's perception of the regulator) are all discussed as they relate to compliance. The author concludes that, "While single factors can be influential, only in the narrowest band of cases will one psychological, organizational, or economic variable explain compliance."

Ermann, M. D., & R. J. Lundman (1987). Corporate and Governmental Compliance. New York, NY: Oxford University Press.

ABSTRACT:

This book, through a collection of articles, shows how large organizations may become deviant. Some articles trace the origins of corporate and governmental deviance, and others detail the patterns of deviant actions such as the knowing release of an unsafe product; price fixing; and police corruption. Concluding articles examine societal reactions to organizational deviance.

Fernandez, L. (October 2, 1984). "More Than A Passing Idea: The Future Of Environmental Cooperation." In proceedings, Second National Conference on Environmental Dispute Resolution. Available from: Conservation Foundation, 1717 Massachusetts Ave. NW, Washington, DC 20036, pp. 1-9.

ABSTRACT:

Offers three proposals to strengthen cooperation between industry and environmental groups. They include: 1.) establish a forum for senior industry and environmental leaders to meet regularly but informally; 2.) get a better fix on the funding needs of environmental mediators, on the niches they are filling, and on the mediation demands they now are unable to meet; and 3.) work harder in order to make cooperation the preferred method of problem solving.

Friedman, F. B. (July, 1983). 60s activism and 80s realities- We've come a long way. The Environmental Forum, pp. 8-11.

ABSTRACT:

The commitment by industry to a strong environmental program, according to the author, will build credibility with the government. Contends that management's commitment must be carried throughout the corporation and corporate environmental protection staff must have responsibility for providing leadership in carrying out the strong environmental policy throughout the corporation. Concludes that today, experienced corporate representatives and corporations recognize that good environmental policy is also good economics.

Friedman, F. B. (February, 1985). Managing and resolving corporate environmental issues. The Environmental Forum, pp. 28-32.

ABSTRACT:

Suggests that the importance of environmental, health, and safety management within the corporation should be reinforced through recognition at the highest corporate levels. These functions can be effective as the equivalent of a "profit center," while ensuring environmental protection. The methods for achieving these goals, as well as the challenges, involve: instituting systems to develop an inventory of materials disposed of into any media and then establishing goals for the reduction of those pollutants; efficiently and effectively dealing with proposed legislation and regulations; and reducing operating and administrative costs through a systems approach and long-range planning.

Friedman, F. B. (1988). Practical Guide to Environmental Management. Available from: Environmental Law Institute, 1616 P Street NW, Suite 200, Washington, DC 20036.

ABSTRACT:

Written from industry's perspective by the Vice President for Health, Environment, and Safety of Occidental Petroleum Corporation, this is the first comprehensive guide on the subject of industrial environmental management. It provides historical and future perspectives on the field, guidelines for implementing and conducting programs, and recommendations for environmental managers on how to deal with lawyers, engineers, business managers, consultants, federal and state agencies, citizen groups, the press, and the public.

Fromm, C. H., & Callahan, M. S., Freeman, H. M., Drabkin, M. (September 14, 1987). Succeeding at waste minimization. Chemical Engineering, pp. 91-94.

ABSTRACT:

This article describes a step-by-step auditing procedure which may be used by industrial environmental managers and engineers to decide what waste minimization options are best given a particular operation.

Glauthier, T. J., & Fox, J. R. (July, 1983). Industry and environmental regulation: What are top management's concerns? What is it doing? Environmental Analyst, pp. 11, 13-15.

ABSTRACT:

Reviews survey of 100 top corporate officers of major corporations on two topics: 1.) their major concerns about environmental regulations; and 2.) the action being taken to address those concerns. The issue about which more executives were "very concerned" was the reasonableness or scientific basis of regulations. Other concerns were the costs of compliance and states adopting their own regulations. The most frequently suggested actions were: work cooperatively with regulatory agencies; protect against surprises by working internally to anticipate regulatory problems; and make organizational changes to align responsibility with decision-making on regulatory and compliance issues.

Gray, B. (1985). Conditions facilitating interorganizational collaboration. Human Relations, 38(10), pp. 911-936.

ABSTRACT:

The basic premise of this paper is that there is a growing need to promote collaborative problem-solving across various sectors of society, i.e., among business, government, labor, and communities. Several circumstances have been identified in which collaborative problem-solving among stockholders is warranted: 1.) the existence of problems which are bigger than any simple organization acting alone can solve; 2.) limitations of traditional adversarial methods of resolving conflicts; and 3.) increasing turbulence which occurs when competing organizations, acting independently in diverse directions, create unanticipated and dissonant consequences for themselves and others. Organizing such collaborative efforts requires focusing on acts of interdependencies which link various stakeholders.

Gray-Gricar, B. (1983). A preliminary theory of compliance with OSHA regulation. Research in Corporate Social Performance and Policy, 5, pp. 121-141.

ABSTRACT:

In this paper, the author examines organizational response to Federal regulation by analyzing the responses of 34 foundries to the Occupational Safety and Health Administration (OSHA). The responses were assumed to be a function of the ideological views of top management, the size of the firm, regulatory uncertainty, dependence on regulatory agencies, and "boundary spanning" activities aimed at keeping up with economic, technological, political, social, and regulatory changes. It was found that ideology, size of firm, and boundary spanning were most closely associated with company response to OSHA. Four classifications of adaptive responses to regulation were developed: technical, informational, administrative, and environmental management.

Greanias, G. C., & Windsor, D. (Eds., 1982).. The Changing Boardroom - Making Policy and Profits in an Age of Corporate Citizenship. Houston, TX: Gulf Publishing Company.

ABSTRACT:

This book resulted from presentations at a conference entitled, "Corporate Governance in the '80s" which was held at the Jesse H. Jones Graduate School of Administration, Rice University on August 8, 1980. Presenters were top-level executives and board members of major corporations. The major theme which runs throughout these writings is that because of increasing public scrutiny, corporations must change the way that they operate so that public welfare becomes a top priority.

Greer, C. R., & K. R. Downey (1982). Industrial compliance with social legislation: Investigation of decision rationales. Academy of Management Review, 7, pp. 488-498.

ABSTRACT:

To determine whether compliance decisions are based on normative or calculative criteria and whether such rationales are individual or organizational in nature, the authors developed a model of compliance behavior. Calculative criteria are those that involve pragmatic responses (such as net monetary benefit) to a particular situation. Normative decision criteria are those that employ supraordinate values in evaluating the utility of compliance. Normative criteria might call for compliance because "it is the law". The study concludes that, depending on the legislation, compliance behavior is affected by at least one of eight variables of normative and calculative behavior. The authors state that if companies (upper management) are to control the compliance behavior of their members, they need to aim their compliance efforts at appropriate salient forces.

Hawkins, A. E. (1989). Back to basics: Successful environmental compliance inspections. Pollution Engineering, 21(1), pp. 118, 120.

ABSTRACT:

Undergoing an environmental compliance inspection by a state or federal agency can be very traumatic, but the consequences need not be feared if a number of steps are taken before and during the inspection. Advance preparation should remove nearly all of the potential surprises, and assure that your company or business is not exposed to serious legal risk because of non-compliance with environmental laws, rules, and regulations.

Hirschorn, J. S. (April, 1988). Cutting production of hazardous waste. Technology Review, 91(3), pp. 52-61.

ABSTRACT:

The author discusses the advantages of preventing industrial waste as opposed to dealing with it after it occurs. Namely: "If less waste is generated, it is cheaper to manage, and there will be fewer failures handling it. A commitment to waste reduction is also likely to contribute to improved, safer operations, and thus reduce the chance of accidents such as Bhopal" (p. 54). The author also discusses ways to reduce waste as well as some of the inherent obstacles.

"How To Limit The Rising Costs Of Strict Regulation." Article appearing in Chemical Week, January 21, 1981, pp. 36-40.

ABSTRACT:

Discusses the management of corporate regulatory affairs programs and describes how companies can save money by closely monitoring physical factors such as plant emission levels while diligently tracking the formulation of new rules enabling them to quickly spot new opportunities for savings. Several corporate approaches including DuPont, Monsanto, and Dow are highlighted as examples. Describes the use of computer-based information systems to aid in the management of regulatory affairs programs.

Huisinigh, D., Martin, L., Hilger, H., & Seldman, N. (1985).

"Proven Profits From Pollution Prevention." Available from: Institute for Local Self-Reliance, 2425 18th Street NW, Washington, DC 20009.

ABSTRACT:

A compendium of case studies which illustrate that industrial leaders are developing and implementing innovative ways to reduce their production of wastes of all types and, at the same time, are increasing their profits. The case studies also present evidence that sound industrial management of resources results in simultaneous economic and ecological benefits.

Hunt, T. E. (March, 1987). Tools to deter violators. EPA Journal, 13(2), pp. 10-12.

ABSTRACT:

The latest tools at EPA's disposal for preventing violations (e.g., environmental auditing), streamlining enforcement casework (e.g., alternative dispute resolution techniques), and maximizing deterrent impact (e.g., contractor listing) are described.

Kagan, R. A., and Scholz, J. T. (1984). "The 'Criminology of the Corporation' and Regulatory Enforcement Strategies". In K. Hawkins, & J. Thomas (Eds.), Enforcing Regulation. Boston, MA: Kluwer-Nijhoff Publishing, pp. 67-95.

ABSTRACT:

In this book chapter the authors review three different ways in which corporate behavior is often conceived: 1.) as amoral economic calculator; 2.) as political citizen; and 3.) as organizationally incompetent. The implications for enforcement of each perspective are discussed as well as each approach's strengths and weaknesses. The authors conclude that: "One implication of the diverse sources of noncompliance is that indiscriminate reliance on any single theory of noncompliance is likely to be wrong, and when translated into an enforcement strategy, it is likely to be counterproductive" (p. 85).

Kaminski, J. A. (August & September, 1988). Hazardous waste minimization within the Department of Defense (Parts A & B). Journal of the Air Pollution Control Association, 38(8&9), pp. 1042-1050, 1174-1185.

ABSTRACT:

This article is a series of representative case studies of Department of Defense hazardous waste minimization. Each Military Department and the Defense Logistics Agency describe actual accomplishments. Areas covered range from production line modification to product specification change. These efforts are part of a Department of Defense plan composed of individual programs executed independently by each military service and defense agency. Part A deals with Department of Defense waste minimization efforts in vehicle repair operations, explosives manufacturing, and abrasive blasting processes. Part B covers shipboard mercury wastes, industrial chemical control, solvent reclamation, and hazardous property sales efforts.

Leemann, J. E. (June, 1988). Waste minimization in the petroleum industry. Journal of the Air Pollution Control Association, 38(6), pp. 814-823.

ABSTRACT:

This paper describes the petroleum industry and the products it makes along with their associated waste streams. The industry's commitment to waste minimization is described with examples of specific minimization projects provided. Although the opportunities for minimization are limited, the economic incentives for reducing waste disposal costs, not to mention long term liability from improper disposal practices, has put the petroleum industry on the road to waste minimization.

Lewis, D. A. (October, 1988). Waste minimization in the pesticide formulation industry. Journal of the Air Pollution Control Association, 38(10), pp. 1293-1296.

ABSTRACT:

The pesticide formulation industry is dependent upon the basic manufacturers for the main raw materials. Waste minimization efforts are, therefore, limited to process/handling sources. The economic incentive for waste reduction has mandated significant changes throughout each facility. There are waste problems, however, that require industry-wide action, e.g., empty containers. The ongoing regulatory actions affecting this business will require continuing efforts to maintain operations.

Linder, S. H., & McBride, M. E. (1984). Enforcement costs and regulatory reform: The agency and firm response. Journal of Environmental Economics and Management, 11, pp. 327-346.

ABSTRACT:

Most of the models of optimal law enforcement have centered on either the Federal enforcement agency or the firm and have largely ignored the decentralized nature of the enforcement responsibilities of State and local government. This paper extends those results by modeling both the firm and the local agency. The models are then evaluated with respect to the alternative regulatory options of direct controls and emissions taxes. The paper concludes that the local agency's likelihood of detecting noncompliance has a greater capacity to affect the firm's behavior than does the level of fines. Moreover, the emission tax option rules out discretion in the treatment of firms, removes the opportunity for informal resolution of detection mistakes, and increases enforcement costs.

Lovdal, M. L., Bauer, R. A., & Treverton, N. H. (May-June, 1977). New standing committee plays active policy role in initiating corporate responses to public and social pressures. Harvard Business Review, pp. 1-8.

ABSTRACT:

Proposes that a public responsibility committee may be a valuable resource for a corporation because it enables a small group to deal with sensitive issues in depth. The optimal public responsibility committee is composed, primarily, of outside directors with business and nonbusiness backgrounds. It possesses adequate funds for hiring outside expertise, and establishes a well-defined range of activities. The effectiveness of a public responsibility committee is dependent upon its internal management and its management support. A working guide outlines ten basic areas of corporate activity, including environmental quality.

Mabbett, A. N. (May, 1983). Developing an effective interface with local, state, and regional environmental authorities. Plating and Surface Finishing, pp. 84-86.

ABSTRACT:

Urges American business to place a priority on learning to deal effectively with regulatory officials. An effective relationship with a regulatory authority includes seven elements: 1.) good communications 2.) honest relationship 3.) periodic and regular contact 4.) negotiations from a position of strength 5.) educated employees and regulatory officials 6.) participation in the development of standards and 7.) obtaining professional assistance, if necessary.

Marcus, A. A., & Goodman, R. S. (1986). Compliance and performance: Toward a contingency theory. Research in Corporate Social Performance and Policy, 7, pp. 168-182.

ABSTRACT:

In this paper the authors critically review the existing literature on corporate social policies and business performance and postulate that compliance is affected by and affects economic performance of the firm. They present the results of two empirical studies that explore the relationship between compliance and performance. The first study is an analysis of the effects of economic performance (as defined by return on assets, return on equity, and long-term debt) on the compliance behavior of smoke stack industries in and around Pittsburgh, PA. The key variables are firm size and extent of the pollution problem. The study concludes that heavy long-term debt and large pollution problems have a negative effect on compliance and that both small and large firms exhibit similar compliance behavior. The second study is an analysis of the effects of compliance with certain regulatory orders of the Nuclear Regulatory Commission on performance of the utility industry (defined as increased safety and economic efficiency). The study concludes that compliance has a negative effect on performance, given the conditions of staff resistance to the regulatory order. The study finds that there is a link between acceptance (of the order) and performance. The performance does not improve, that is, the staff does not comply (although it may appear to comply) with regulatory orders when it rejects them on ideological grounds.

Miller, D. T. (1985). "Psychological Factors Influencing Compliance". Available from: Federal Statutes Compliance Project, Department of Justice, Ottawa, Canada.

ABSTRACT:

Based upon a comprehensive literature review, this paper elucidates six psychological principles involved in compliance behavior: 1.) perceived fairness of the regulation; 2.) perceived fairness of the regulation's enforcement and monitoring; 3.) regulatee knowledge of the regulation; 4.) regulatee commitment to the regulation; 5.) regulatee feeling of responsibility for own compliance record; and 6.) economic profit associated with compliance and economic cost associated with noncompliance. Means are discussed for increasing the perceived legitimacy of inspectors so that compliance is enhanced. The author concludes that the purpose of the paper was to address the causes rather than the symptoms of noncompliance with environmental law, noting that: "Bureaucratic and rule-minded enforcement can lead to a minimalist attitude on the part of both law enforcement officials and regulatees, leaving them unresponsive to more serious, but not technically illegal situations" (p. 24).

National Association of Manufacturers (1989). Waste Minimization: Manufacturers' Strategies for Success. Report available from: Publications Coordinator, National Association of Manufacturers, 1331 Pennsylvania Ave., NW, Washington, DC 20004-1703.

ABSTRACT:

In this report, "waste minimization" is defined as: "a method of pollution prevention that focuses on reducing the generation and discharge of hazardous waste at its source to avoid subsequent handling, treatment, and disposal". Benefits of waste minimization are described and classified into five primary categories: environmental quality, economic, regulatory compliance, reduced liability, and community relations/public image. Information is given on how to establish and implement waste minimization programs as well as descriptions of successful programs at companies such as DuPont and 3M. Information is also given on where to seek assistance resources for waste minimization programs. Finally, recommended publications on the subject of waste minimization are listed.

Oman, D. E. (July, 1988). Waste minimization in the foundry industry. Journal of the Air Pollution Control Association, 38(7), pp. 932-940.

ABSTRACT:

The foundry industry is a major consumer of waste materials (scrap). Unfortunately, the recycling of these waste materials can result in the generation of hazardous wastes that must be properly managed at a significant cost. This article focuses on two waste streams in the foundry industry; calcium carbide desulfurization slag and melt emission control residuals. The author presents an overview of how foundries have evaluated different waste management options with the ultimate goal of minimizing the generation of hazardous waste.

Pizzi, F. P. (October, 1983). Create an effective information system. Hydrocarbon Processing, pp. 81-82.

ABSTRACT:

This article addresses the growing need to retrieve and evaluate information about the environment. As regulations and reporting requirements have increased, there is a great need for efficient information management. An effective computerized environmental information management system provides help in three key areas: 1.) managing environmental information; 2.) monitoring compliance; and 3.) evaluating environmental programs. The article comments on types of uses and project cost and time requirements.

Plaut, J. (Spring, 1984). Hazardous waste control and industry. Toxic Substances Journal, pp. 251-260.

ABSTRACT:

Speech, presented at the Conference on Waste Management, discussing changing societal perceptions of environmental hazards and of industry's role in preventing hazardous waste accidents. Suggests that good pollution control and responsible waste handling should be a key management priority, not only to comply with governmental regulations and avoid litigation, but also to maintain long-term profitability and competitiveness.

Reiter, W. M. (February, 1986). Environmental liability control. The Environmental Forum, pp. 39-43.

ABSTRACT:

The author (Director of Pollution Control for Allied Corp.) first discusses the manifestations of corporate liability: monetary, negative publicity, and managerial time. He then describes components of an environmental liability control system: top management recognition and support, integration into business operations, adequate expertise and resources, coordination with public affairs and law departments, and corporate oversight (or enforcement).

Roberts, M. J., & Bluhm, J. S. (1981). The Choices of Power. Cambridge, MA: Harvard University Press.

ABSTRACT:

Discusses the process by which electric utilities have come to terms with growing environmental pressures. It provides a close look at the way in which six utilities have coped with this challenge. The authors explain the systematic framework they have developed for analyzing organizational behavior, and show how to use this tool by employing it in six different case studies.

Scholz, J. T. (1984). Cooperation, deterrence, and the ecology of regulatory enforcement. Law and Society Review, 18(2), pp. 179-223.

ABSTRACT:

Presents a model which shows that an enforcement strategy that combines cooperation and deterrence is likely to produce greater net benefits than a single-minded deterrence strategy.

Sproull, L. S. (1981). Response to regulation: An organizational process framework. Administration and Society, 12(4), pp. 447-470.

ABSTRACT:

The author proposes an organizational process framework for considering response to regulation. Its major elements are processes by which: 1.) organization attention is captured; 2.) meaning about external stimuli is constructed; 3.) response repertoires (standard operating procedures and programs) are invoked; and 4.) behavioral directives or guides for action are conveyed from a central office to subunit sites. Although the author has detailed the approach through one segment of the public sector--public education--this framework is equally appropriate for analyzing and understanding response to regulation in private sector organizations.

Stephan, D. G., & Atcheson, J. (June, 1989). The EPA's approach to pollution prevention. Chemical Engineering Progress, pp. 53-58.

ABSTRACT:

This article describes the United States Environmental Protection Agency's efforts to prevent pollution before it occurs. As a result of objectives set forth by Congress in 1988, the EPA created a new Pollution Prevention Office (PPO) within its Office of Policy, Planning, and Evaluation (OPPE). Since this time, the underlying theme which the EPA has been trying to convey is: "we, as a society, must begin to integrate pollution prevention into the way we design, build, buy, and consume".

Stone, C. D. (Fall, 1975). Law and the culture of the corporation. Business and Society Review, 15, pp. 5-17.

ABSTRACT:

In this article the author discusses how business culture affects the degree of law abidance demonstrated by corporations and how this culture can be changed to increase it. Case studies are used to demonstrate points which are raised. Although not directly applied to environmental law, the more general issue of corporate social responsibility is discussed and can be easily applied to the environmental realm.

Susskind, L., & Weinstein, A. (January, 1982). How to resolve environmental disputes out of court. Technology Review, pp. 38-40.

ABSTRACT:

Contends that our legal system cannot handle environmental disputes efficiently and advocates out-of-court negotiation. Nine steps toward lasting resolution of mediated out-of-court negotiations are prescribed. Lastly, the authors argue that if the out-of-court bargaining process is to become a real alternative to litigation, the power of government agencies to exercise discretion in settling conflict must increase.

U. S. Environmental Protection Agency (1984). Agencywide Compliance And Enforcement Strategy And Strategy Framework For EPA Compliance Programs. Available from: Compliance Policy and Planning Branch, U.S. EPA (LE-133), Washington, DC 20460.

ABSTRACT:

This document discusses EPA's past, present, and future enforcement efforts and the challenges associated with these efforts.

U. S. Environmental Protection Agency (September, 1985). "Study Of Literature Concerning The Roles Of Penalties In Regulatory Enforcement". Available from: Compliance Policy and Planning Branch, U.S. EPA (LE-133), Washington, DC 20460.

ABSTRACT:

This paper reviews the literature on the roles of penalties in regulatory enforcement. It covers schools of thought on the matter: the Economic and the Behavioral, the purposes of penalties, the assessment of penalties and mitigation criteria, and different types of penalty authority and implementation procedures.

U. S. Environmental Protection Agency (April, 1988). The EPA Manual for Waste Minimization Opportunity Assessments. Available from: Hazardous Waste Engineering Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Cincinnati, OH 45268.

ABSTRACT:

By following the procedures outlined in this manual, a waste generator can: 1.) save money by reducing waste treatment and disposal costs, raw material purchases, and other operating costs; 2.) meet state and national waste minimization policy goals; 3.) reduce potential environmental liabilities; 4.) protect public health and worker health and safety; and 5.) protect the environment.

U. S. Environmental Protection Agency (May 8, 1989). "Corporate Environmental Management Training -- Two workshops co-hosted by U.S. Environmental Protection Agency: Regulatory Innovations Staff and Occidental Petroleum Corporation". Report available from: Jim Hayes (project manager), Regulatory Innovations Staff, U.S. EPA (PM-223), Washington, DC 20460.

ABSTRACT:

This is a report of the discussion agenda from two workshops on Environmental Management Training, hosted by the U.S. EPA Regulatory Innovations Staff and Occidental Petroleum, which were held in November and December, 1988. The workshops, held in Los Angeles, CA and Washington, DC, brought together senior corporate level environmental managers, academic representatives from university programs in environmental management training, consultants, State regulatory agency representatives, and interested parties from the EPA Office of Policy, Planning, and Evaluation (OPPE) to discuss their collective experience and identify the industry needs, resource requirements, and management systems requirements for effective training of corporate environmental managers.

U. S. Environmental Protection Agency (1989). "Fostering Effective Environmental Management". Report available from: Regulatory Innovations Staff, U.S. EPA (PM-223), Washington, DC 20460.

ABSTRACT:

In this report, the role of environmental management is defined and the needs of environmental managers are discussed. Specifically, an integrated approach toward environmental management is advocated in which human resources, technology, and environmental management practices interact. It is forecasted that an environmental management profession will eventually develop with minimum training and certification requirements defined.

VNO Federation of Netherlands Industry and NCW Netherlands Christian Employers Federation (October, 1987). "Environmental protection in companies: Guide to the organisation of corporate environmental protection systems." Brochure available from: Attache for Health and Environmental Protection, Royal Netherlands Embassy, 4200 Linnean Ave. NW, Washington, DC 20008.

ABSTRACT:

This brochure is intended as a practical guide for both large and small firms that wish to organise an environmental protection system or develop one further. The system described is expressly intended only as a detailed schematic example, not as a blueprint. Practical situations differ in almost every company; therefore, the particular system must be tailor-made. However, if one genuinely wishes to be able to refer to an adequate internal corporate environmental protection system, the necessary basic elements will have to be present in a more or less highly developed form.

Wasserman, C. (1985). "Improving the Efficiency and Effectiveness of Compliance Monitoring and Enforcement of Environmental Policies - United States: A National Review." Conference paper prepared for The Organization for Economic Co-operation and Development, Environment Directorate. Available from: Compliance Policy and Planning Branch, U.S. EPA (LE-133), Washington, DC 20460

ABSTRACT:

In this paper the author considers the theoretical foundations of compliance motivation and then discusses ways to increase levels of compliance. It is stated that, "... the key to a successful and efficient compliance promotion and enforcement program is matching enforcement approaches to the full range of motivating factors that may be at work for individuals and all levels within regulated entities" (p. IV-4). Ways of assessing an enforcement program's effectiveness and efficiency are also discussed. Wasserman works in EPA's Office of Enforcement and Compliance Monitoring (OECM).

Wasserman, C. (1987). "Environmental Compliance And Enforcement: Theory, Practice, And The Challenge To Environmental Economists. Conference paper prepared for The Association of Environmental and Resource Economists Workshop on Environmental Enforcement and Monitoring, University of Delaware. Available from: Compliance Policy and Planning Branch, U.S. EPA (LE-133), Washington, DC 20460.

ABSTRACT:

This paper discusses theories of compliance and enforcement, ways of defining and assessing enforcement program success, and gaps in knowledge which must be filled in order to increase level of compliance.

Waste Advantage, Inc. (1989). Industrial Waste Prevention: Guide To Developing An Effective Waste Minimization Program. Available from: Waste Advantage, Inc., 23077 Greenfield Rd., Southfield, MI 48075, (313) 569-8156.

ABSTRACT:

This book is short and to the point for practical plant use. It provides step-by-step instructions for developing an effective waste minimization program. Most of the ideas for waste prevention are relatively inexpensive to implement and do not require any major changes in plants.

