

Responsible Care

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*A New Strategy for
Pollution Prevention
and Waste Reduction
through Environmental
Management*

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Houston, Texas

Responsible Care: A New Strategy for Pollution Prevention and Waste Reduction through Environmental Management

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About the Authors

Nicholas P. Cheremisinoff is a consultant to industry, international lending institutions, and donor agencies on responsible environmental care practices. His career spans more than 30 years over a diverse spectrum of industry sectors. His assignments brought him to many parts of Eastern Europe, where he helped draft Integrated Pollution Prevention and Control legislation for the government of Ukraine; to Romania, Bulgaria, other parts of the Balkans, where he conducted numerous pollution prevention programs and retooling of environmental regulators; to Russia, where he consulted with various industries on responsible care and cleaner production investments; to the Middle East where he consulted with the Ministry of Environment of the Hashemite Kingdom of Jordan on pollution prevention programs and retooled hundreds of industry stakeholders on the application of environmental management systems; and to other parts of the world on assignments focused on cleaner production investments and sound environmental management practices. He is the author, coauthor, or editor of more than 100 technical books and hundreds of state-of-the-art review articles and scientific papers. He received his B.Sc., M.Sc., and Ph.D. degrees in chemical engineering from Clarkson College of Technology.

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Mr. Davlestshin developed his research and technical writing skills in numerous assignments, including the creation of this book. Among his technical skills is fluency in four languages.

Preface

This book is written for corporate environmental managers and those individuals who influence or help to create and steward the environmental policies of their companies and organizations. It is written at the operational level, meaning that technologies and practices for managing waste and pollution are examined.

Corporations owe it to themselves, their employees, and their investors to carefully monitor and control the environmental aspects of their business operations. To many companies, this means paying close attention to and following environmental regulations. However, we believe this is inadequate.

Environmental regulations are based on statutes created to provide a minimal level of protection to the public, workers, and the environment. Merely focusing on meeting statutory obligations does not ensure that a business is acting responsibly or meeting a high standard of environmental performance. When a company focuses its resources and efforts to meet only its statutory obligations, it is doing nothing more than making the minimum investments in controlling the negative impacts of its operations and services. Furthermore, we argue that, when a corporation does only what the regulations say it should do, long-term liabilities are likely to be encumbered that could result in significant financial losses to the company.

A simple example to this point may help convince some of our readers. Many companies maintain underground storage tanks that are regulated. When the Resource Conservation and Recovery Act, Title C, went into effect in 1988, facilities were given a 10-year grace period in which to meet new technical design and operating standards aimed at preventing accidental spills and leaks that adversely affect groundwater quality. Many companies faced with this legal obligation already had 25-year-old tanks, single-walled, bare-steel vessels that they suspected or should have suspected were potential leakers. The law was intended to eliminate this problem over time. Many companies simply chose to delay modernization investments until the compliance due date.

From one standpoint, this makes business sense, because after all, why initiate a high-capital investment when full compliance is a decade away? But, in another sense, this

not only is a poor business decision but irresponsible. Companies that chose to wait until the compliance schedule mandated changes wound up dealing with a succession of environmental cleanup actions as well as civil suits from third-party property damages and, in some cases, community actions from entire neighborhoods. The costs for remediation of contaminated soil and groundwater from leaking tanks, in some instances, were but small components of the financial impact to some companies, when we consider the liabilities associated with medical monitoring, property diminution, legal fees, and damage to corporate reputation.

Our approach is quite simple. We believe that all companies should have a formal environmental management system (EMS) that focuses on the identification and systematic elimination of the negative environmental impacts of their operations. We argue that the focus of the EMS not be on meeting the minimum statutory requirements for environmental protection and worker safety but rather on a systematic approach to reducing wastes and inefficiencies over time. Waste and inefficiency are pollution. Waste and inefficiency cost a company money by raising operating costs that cannot be passed on to customers, by consuming resources in a reckless and irresponsible manner, and by placing the workforce and the public in harm's way, which in turn results in financial threats to the company.

The book has nine chapters. The chapters are designed to introduce terminology, methodology, tools, procedures, and practical advice on how to improve profitability through investment in financially sound best management practices, pollution prevention, and cleaner production technologies, and to incorporate responsible care as a strategic objective in an overall business strategy.

We gratefully acknowledge the cooperation and contributions made by the Jordan Phosphate Mining Company and the Jordan Petroleum Refinery. These facilities are to be commended for allowing independent critical assessments of their environmental management systems with a focus on improving overall environmental performance. In particular, we thank Hani Dukhgan, Dr. K. G. Halaseh, and Dr. N. Abu Omar of the Jordan Phosphate Mining Company for their case study contribution to Chapter 3.

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