

## Principles of Environmental Compliance and Enforcement Handbook

International Network for  
Environmental Compliance and Enforcement

April 2009



# Principles of Environmental Compliance and Enforcement Handbook

International Network for Environmental Compliance and Enforcement

April 2009

## **ABOUT THE INTERNATIONAL NETWORK FOR ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT (INECE)**

The International Network for Environmental Compliance and Enforcement (INECE) is a partnership of more than 3,000 government and non-government enforcement and compliance practitioners from more than 150 countries. INECE's goals are to raise awareness of compliance and enforcement; develop networks for enforcement cooperation; and strengthen capacity to implement and enforce environmental requirements.

INECE promotes the use of regulatory and non-regulatory approaches to increase compliance with and enforcement of environmental laws and regulations that promote the sustainable use of natural resources and the protection of ecosystem integrity at the global, regional, and national levels.

For more information, visit our website at [www.inece.org](http://www.inece.org).

## **ORDERING INFORMATION**

USEPA's print publications are available through the National Service Center for Environmental Publications (NSCEP), and USEPA's digital publications are stored in the National Environmental Publications Internet Site (NEPIS) database.

You can search and retrieve, download, print and/or order only USEPA publications, free of charge, from this site: <http://www.epa.gov/nscep/>.

To obtain a copy of this volume, provide its title and document number 300F09002. You may contact:

NSCEP Toll Free: 1-800-490-9198

NSCEP Fax: 1-301-604-3408

NSCEP Email: [nscep@bps-lmit.com](mailto:nscep@bps-lmit.com)

Web Site: [www.epa.gov](http://www.epa.gov)

## **ACKNOWLEDGMENTS**

Many individuals and organizations contributed time and energy to develop the second edition of the *Principles of Environmental Compliance and Enforcement Handbook*. Special mention goes to Durwood Zaelke, Tim Whitehouse, Jo Gerardu, and Thomas Higdon of the INECE Secretariat, Davis Jones of the U.S. Environmental Protection Agency, Ken Markowitz of the law firm Akin Gump Strauss Hauer & Feld LLP, and Meredith Reeves of the consulting firm Earthpace. Other contributors include Angela Bularga, Tom Maslany, Mike Stahl, and members of the INECE Executive Planning Committee. This work would also not have been possible without the help of Heather Callan, Kirk Herbertson, Veronique Millon, David Newman, Adam Pienciak at the INECE Secretariat.

The first edition of this handbook was developed in 1992 by the USEPA in consultation with the Netherlands' Ministry of Housing, Spatial Planning and Environment (VROM), the Polish Ministry of Environmental Protection, Natural Resources and Forestry, and the Katowice Ecology Department in Poland.

The principal author of that edition was Cheryl Wasserman of USEPA, with contributions from Jo Gerardu of VROM. This new edition relies heavily on their pioneering work.

## **UPDATES TO THIS HANDBOOK**

This text can be periodically updated to include new enforcement developments and examples from INECE participants. Readers and users are encouraged to send their ideas, examples, and comments to the Secretariat of the International Network for Environmental Compliance and Enforcement at

2300 Wisconsin Avenue, NW, Suite 300B

Washington, D.C. 20007, USA

[inece@inece.org](mailto:inece@inece.org)

## TABLE OF CONTENTS

ABOUT THE INTERNATIONAL NETWORK FOR ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT .....	I
ORDERING INFORMATION .....	I
ACKNOWLEDGMENTS .....	II
UPDATES TO THIS HANDBOOK .....	II
TABLE OF CONTENTS .....	III
1. INTRODUCTION.....	1
2. OVERVIEW OF COMPLIANCE AND ENFORCEMENT PROGRAMS.....	3
2.1 Introduction.....	3
2.2 Context for Enforcement .....	3
2.3 Benefits of Compliance and Enforcement .....	5
2.4 Types of Compliance Activities .....	7
2.5 Compliance Monitoring.....	7
2.6 Enforcement.....	8
2.7 Theories of Compliance Behavior .....	8
2.8 Challenges in Developing an Effective Program .....	9
3. PRINCIPLES OF EFFECTIVE COMPLIANCE AND ENFORCEMENT .....	11
3.1 Introduction.....	11
3.2 Environmental Results and Shared Responsibility.....	11
3.3 Goals and Strategies.....	12
3.4 Good Governance, Rule of Law, and Compliance .....	12
3.5 Structure and Resources.....	13
3.6 Continuous Evaluation and Improvement .....	14
4. SELECTING A MANAGEMENT APPROACH .....	15
4.1 Introduction.....	15
4.2 Approaches to Environmental Management .....	15
4.3 Finding the Right Mix.....	17
4.4 Making the Mandatory Approach Enforceable .....	19
5. DESIGNING EFFECTIVE REQUIREMENTS .....	21
5.1 Introduction.....	21
5.2 Basic Legal Issues .....	21
5.3 Balancing Stringency and Feasibility.....	24
5.4 Effective General Requirements .....	24
5.5 Facility-Specific Requirements .....	29
5.6 Ensuring Effectiveness.....	29
5.7 The Permitting and Licensing Processes.....	31
5.8 Involving Stakeholders .....	32
5.9 Coordinating with Other Programs .....	34

6. COMPLIANCE PROMOTION .....	35
6.1 Introduction.....	35
6.2 Compliance Assistance .....	35
6.3 Compliance Incentives .....	37
6.4 Market-Based Mechanisms.....	41
7. MONITORING COMPLIANCE .....	43
7.1 Introduction.....	43
7.2 Inspections .....	44
7.3 Audits versus Inspections.....	45
7.4 Types of Inspections .....	46
7.5 Steps in the Inspection Process .....	47
7.6 Building an Effective Inspection Program.....	52
7.7 Self-monitoring, Self-recordkeeping, and Self-reporting .....	57
7.8 Citizen Monitoring.....	60
7.9 Area Monitoring .....	63
8. ENFORCEMENT .....	65
8.1 Introduction.....	65
8.2 The Enforcement Process.....	65
8.3 Designing an Enforcement Response Policy .....	67
8.4 Types of Enforcement Responses .....	68
8.5 Choosing Between Enforcement Responses.....	74
8.6 Negotiations and Settlements of Disputes .....	82
8.7 Citizen Enforcement.....	86
9. BUILDING EFFECTIVE PROGRAM INFRASTRUCTURE .....	91
9.1 Introduction.....	91
9.2 Designing Compliance Assurance Institutions .....	91
9.3 Dividing Responsibilities Among Levels of Government .....	96
9.4 Role of Civil Society in Compliance Assurance.....	99
9.5 Facilitating International and National Networking .....	101
10. MEASURING AND MANAGING PERFORMANCE THROUGH COMPLIANCE AND ENFORCEMENT INDICATORS.....	104
10.1 Introduction.....	104
10.2 Stage 1. Identifying Indicators .....	105
10.3 Stage 2: Developing Indicators .....	111
10.4 Stage 3: Using Indicators .....	113
10.5 Common Lessons .....	115
11. REFERENCES.....	116

## 1. INTRODUCTION

This handbook outlines some of the important considerations in designing, implementing and evaluating effective environmental enforcement and compliance programs. It serves as background reading for the training course on the Principles of Environmental Enforcement and Compliance. In 1992, the USEPA created this course in response to a request by Poland's Ministry of Environmental Protection, Natural Resources and Forestry. The Netherlands' Ministry of Housing, Spatial Planning and Environment contributed significantly to the development of this course. Since its first delivery in 1992, the Principles course has been given hundreds of times in countries throughout the world.

Successful implementation of environmental requirements requires significant effort and forethought. Changes in behavior are difficult to accomplish on both a societal and personal level. No one formula exists for achieving compliance. There is merely trial, evaluation, and adaptation to find the most effective compliance strategies for any given situation. Nevertheless, a reliable framework for designing compliance assurance programs has emerged based on the experiences of countries around the world. The information in this handbook derives from these experiences.

Chapter 2 provides a basic overview of the concepts behind successful enforcement and compliance programs. This overview briefly examines: (1) the specific types of compliance and enforcement programs; (2) how compliance and enforcement programs fit into the elements of an environmental management cycle; (3) the benefits that derive from an effective compliance and enforcement program; (4) the theories of compliance behavior and why it is important to understand these theories when developing a compliance strategy; and (5) some of the general difficulties and obstacles that may exist to the development of an effective program.

Chapter 3 describes twelve principles of effective environmental compliance and enforcement programs. These principles are divided into five sections: (1) a commitment to the environment; (2) vision, goals and strategies; (3) governance and the rule of law; (4) structure, responsibility and resources; and, (5) continuous evaluation and improvement. While the strength of any one principle may vary based on cultural, economic, political and social needs of a particular country or region, together they help form the foundation of a successful environmental compliance and enforcement programs.

Chapters 4 through 10 build on issues discussed in Chapter 2 and 3. Chapter 4 discusses three different overlapping management approaches -- voluntary, market-based and mandatory -- that make up the framework underlying most environmental programs. Chapter 5

looks at some of the issues to consider when designing effective requirements. Chapter 6 provides an overview of what makes up typical compliance assistance and compliance incentive programs. The importance of compliance monitoring is discussed in Chapter 7, while Chapter 8 examines the basic elements of enforcement programs and types of enforcement responses. Chapter 9 discusses how organizations build effective infrastructure and inter-organizational communication, and how to do so in the context of an environmental management program. Chapter 10 examines ways to develop, measure, use and interpret environmental compliance and enforcement indicators.