Detailed Requirements discuss occupational, medical and public exposure as well as potential exposure safety of sources, emergency exposure situations and chronic exposure situations.

G.F. Bennett

Hazardous Waste Planning, by J.A. Soesilo and S.R. Wilson, CRC/Lewis Publishers, Boca Raton, FL, 1995, \$64.95, 275 pp. ISBN: 0-87371-497-0

The contents of this book are different from those I ordinarily review that deal with the technical aspects of the disposal of hazardous waste. This book, instead, describes the management of hazardous waste programs in the private and public sectors from the planning perspective.

The book has eleven chapters divided into the following five major sections:

- 1. Introduction
- 2. Legal Aspects
- 3. Data Management
- 4. Types of Hazardous Waste Planning
- 5. Hazardous Waste Planning Trends

Planning for hazardous waste generation, handling, transportation and disposal was required when the U.S. Congress passes the Resource Conservation and Recovery Act of 1976 which established a "cradle-to-grave" system of hazardous waste management.

Some of the major current problems are issues associated with hazardous waste management include:

- 1. The ever-increasing strictness of hazardous waste regulations and the increasing emphasis on enforcement and higher penalties
- 2. The "not in my backyard" (NIMBY) syndrome and other problems associated with hazardous waste facility siting
- 3. The hazardous waste contamination from inactive hazardous waste sites
- 4. The soaring costs of hazardous waste management
- 5. The difficulty of exporting hazardous waste to other states
- 6. The quality of waste generation data
- 7. The amount of hazardous waste generated
- 8. Maintaining progress amid economic development

Following the introduction (Chapter 1), the authors discuss "The Scope of Hazardous Waste Planning" (Chapter 2). They note that the following five aspects are important in the planning process:

- 1. Identify problems and specify objectives.
- 2. Design, study, and compile an inventory of conditions and resources.
- 3. Analyze data and formulate plans and policies.

- 4. Evaluate alternative plans and policies, and select the best alternative.
- 5. Implement the plan or policy, and continuously monitor the implementation.

Because good formulation and identification of objectives represent an initial stage of the planning process, Chapter 2 focuses on that topic.

As I have stated in numerous other book reviews, the (almost) infinite number of regulation-spawned by RCRA have made the environmental law the most complex U.S. laws. Consequently, it is not surprising to see the title "Legal Aspects" heading Chapter 3 and "Rule Development and State Authorization" for Chapter 4.

Data Management is discussed in the next two chapters. Included is a description of the required hazardous waste manifest (that must accompany off-site shipment) as well as a description of the five government forms used for biennial reporting (of hazardous waste activities).

Hazardous waste planning creates plans, policies, or programs. Depending on the specific planning objectives, the activity can be generalized into four major groups. They include (1) hazardous waste management planning, (2) site correction and remedial planning, (3) emergency response and hazard management planning, and (4) citizen participation planning.

Chapter 7 discusses hazardous waste management planning, which can be described as an activity that supports the goal of hazardous waste management in assuring the proper management of hazardous waste from the time it is generated to its ultimate disposal. In the context of hazardous waste management, compliance planning represents the first planning category, followed by waste minimization and pollution prevention, capacity assurance planning, facility siting, and state hazardous waste management planning. These five categories of planning are the topics of Chapter 7.

Chapter 8 describes the planning aspects of site correction and remediation. Based on its regulatory status, a hazardous waste contaminated site may be addressed from three alternative approaches, as a CERCLA site, an RCRA corrective action site, or an RCRA contaminated site. These three categories of sites are discussed in Chapter 8.

Chapter 9 discusses emergency response and hazard management planning. Emergency response and hazard management planning are concerned with the safety of people and the environment from potential hazards resulting from hazardous materials accidents, incidents, or improper management of hazardous material. The planning aspect of the hazard management process is addressed in this chapter.

Chapter 10 examines citizen participation planning. Citizen participation planning is essentially about building and maintaining effective and efficient communication among all of the parties involved in the hazardous waste management system: the business, the government, and the public. Citizen participation planning in both the private and public sectors is described in this last chapter of Part Four.

The book ends with two very short (and very general) chapters (11 and 12) on Hazardous Waste Management by Local Government and the Future of Hazardous Waste Planning.

G.F. Bennett