

For me (an engineer) the key chapter was the eighth, entitled “Emission Control Technology.” It contains 19 sections in 237 pages with subsections titled as follows:

- 8.1 The Addition of Chemicals to Liquid to Control Odors
- 8.2 Masking and Odor Neutralization
- 8.3 Condensation
- 8.4 Thermal Oxidation
- 8.5 Adsorption
 - 8.5.1 Carbon
 - 8.5.2 Fog
- 8.6 Chemical Scrubbing
 - 8.6.1 Packed Columns
 - 8.6.2 Mist Scrubbing
 - 8.6.3 Other Designs
- 8.7 Dry Chemical Scrubbers
- 8.8 Biological Systems
 - 8.8.1 Biofilters
 - 8.8.2 Aeration Basins
- 8.9 Hybrid Systems
- 8.10 Particulates
 - 8.10.1 Physical Collection
 - 8.10.2 Electrostatic Precipitators

In the preamble to this chapter, Rafson wrote: “This chapter of the book is a critical part in that it explains the equipment, processes, and options available to solve odor or volatile organic compound (VOC) emission problems. Many of the contributors for this chapter are actively involved in the specific technology about which they write. This leads to an active, timely, and informative discussion; however, it also runs the risk of allowing the author’s preferences to be shown. As an editor, I have aimed for a fair and balanced presentation.”

In the last sentence above, he expresses an editor’s inability (which I also have experienced) to get equally balanced sections for a multi-authored text. Some subsections (biofiltration, for example) are extensive and well written; others are too short. Some have very good cost data (incineration, for example); others have none. But the overall content of the chapter is comprehensive; indeed, at 237 pages, it could be a book by itself.

But there is more, much more, from the initial chapter, written by a former state governor giving a historical overview of the topic (air pollution in general), to methods of analysis, health effects, statistical techniques, collection systems, emission modelling, pollution prevention, risk analysis, insurance and ethics.

My evaluation is that the book is a comprehensive analysis of the topic and one that could be extremely useful to engineers in the field, although it does stray somewhat from the topic at hand in the later chapters (risk analysis, insurance and ethics).

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Survey of Chemical Spills Countermeasures, Merv Fingas, Jennifer Charles, P.G. Langille and L.B. Solsberg (Eds.), Lewis Publishers, Boca Raton, FL, 1998, \$65.00, 341 pp., ISBN: 0-56670-313-1

This book is a survey of commercially available equipment, processes, and agents (collectively termed countermeasures) for controlling chemical spills. It includes only those products that have been evaluated, have proven performance, or were judged to have potential merit for chemical spill response. It is an updated and extensively revised version of the original *Survey of Chemical Spill Countermeasures*, which was published in 1986. This revised and updated version contains data made available to Environment Canada's Emergencies Science Division up to April, 1996.

The products are categorized in various sections according to the primary response operation for which they are used. The following are the categories and the subsections within them.

Containment	Leak mitigation
	Containment on land
	Containment on water
	Containment in/under water
Removal	Removal from land
	Removal from surface water
	Removal from subsurface soils
	Sorbents
	Vacuum systems
	Dredging
Temporary storage	Flexible containers
	Rigid wall containers
	Liners
Transfer	Transfer of liquids
	Transfer of gases
	Transfer hoses
Treatment/disposal	Spill treating agents
	Liquid–solid separation systems
	Fundamental water treatment processes
	Aqueous treatment systems
	Vapour treatment systems
	Solids treatment systems

Each product is discussed in 1–2 pp. Included are excellent diagrams of the equipment described. Given for each system are: (1) description, (2) operating principle, (3) status of development and usage, (4) technical specifications, (5) performance, (6) contact information, (7) other data, and (8) references.

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