

4. Electrical hazards
5. Laboratory equipment
6. Laboratory rules
7. Biological hazards
8. Compressed gases and cryogenic materials
9. Ventilation
10. Protective and emergency equipment
11. Light and other forms of radiation
12. Spills and fires
13. First aid
14. Noise

Being interested in chemical spills and being aware of three (expensive) mercury spills on our campus, and just having read a paper in Environment Canada's Spill Proceedings on elevated mercury levels in paint, I read with interest the following paragraph:

"Even the small amounts of mercury are dangerous. If a mercury thermometer is broken, approximately 1 g of mercury would be spilled. At room temperature (24°C), the vapor pressure of mercury is 0.01591 torr. The mercury will vaporize until an equilibrium concentration of 20 mg/m³ is achieved. If the laboratory were 50 ft × 25 ft × 10 ft, it would contain about 330 m³ of air. If poorly ventilated, the room could contain up to 6600 mg of mercury vapor or six times as much as the spill. Thus, it is safe to assume that all the mercury would vaporize. At that rate, the air in the room would contain 3.03 mg/m³ of mercury vapor as compared to the TLV of 0.05 mg/m³ allowed. Thus the spillage of the mercury in one thermometer can pose a significant laboratory hazard." (p.139).

Point well made; an excellent example, in a most useful book.

GARY F. BENNETT

The Complete Guide to the Hazardous Waste Regulations: A Comprehensive Step-by-step Guide to the Regulation of Hazardous Wastes Under RCRA, TSCA, HMTA, OSHA and Superfund, by T.P. Wagner, Van Nostrand Reinhold, New York, NY, 1991, ISBN 0-442-00355-2, 488 pp., \$69.95.

In a gross understatement, the publisher has written on the flyleaf

"The complexity of the many regulations being promulgated and revised has made it nearly impossible to comprehend the myriad of regulations. Thus, there is a need for a quality reference book that will cut through the regulatory language and present it in a clear and concise manner."

And in a quote preceding the preface the author writes:

"One of the greatest pleasures of life is to succeed where others said you would fail."

And Wagner has succeeded — at least in making the law understandable to me. I cannot recount the number of times I have pondered over the Federal Register copies of new hazardous waste regulations and then called my friends at a local hazardous waste landfill for clarification. RCRA laws are, to say the least, complex.

Wagner writes in a clear fashion explaining the law, its intention and its application. He makes liberal use of references to definitions (indeed he has a definitions “chapter”), and excellent use of tables and flow diagrams. The discussion flows logically from one topic to the next with appropriate cross-references to the Code of Federal Regulations (CFR) and the original Federal Register citation. The book is divided into three major parts:

1. The Resource Conservation and Recovery Act (RCRA) (260 pp.)
2. Superfund (CERCLA) (80 pp.)
3. The Toxic Substances Control Act (TSCA) (50 pp.)

The third part of the book (TSCA) deals with PCBs, which are regulated under TSCA rather than under RCRA. Three separate chapters deal with definitions, use, storage and disposal, and spill cleanup requirements for PCBs.

Part II covers Superfund (Comprehensive Environmental Response Compensation and Liability Act or CERCLA) and especially its relation to RCRA, for indeed they do overlap and sometimes conflict). Covered in this section are: relation to other laws, definitions, reporting requirements response actions, remedial response and miscellaneous (enforcement, natural resource damages, public participation and worker health and safety programs).

The largest part of the book is, however, devoted to a discussion of RCRA. As I said, it was excellent and very up-to-date. Both the recently promulgated land ban restrictions (they actually came out over a 3-year period), and the foreboding massive correction action program are dealt with. The latter (Corrective Action) has the primary objective of addressing and cleaning up releases of hazardous waste or hazardous substances from RCRA hazardous waste management facilities — and the task industry faces in complying with corrective action guidance has the potential of exceeding the Superfund program in cost by a factor of 10.

The ten chapters in Part I are the following:

1. Key definitions under RCRA
2. Hazardous waste identification
3. Generators
4. Shipping and transportation
5. General standards for waste management facilities
6. Technical standards for waste management units
7. Permits and interim status
8. Land disposal restrictions
9. Corrective action