

*Basics of Industrial Hygiene*, Debra K. Nims, John Wiley and Sons, Inc., New York, NY, 1999, \$49.95, 355 pp. (8 1/2 in × 11 in format), ISBN: 0-471-29983-9

This is the second book I have reviewed recently from the Wiley series entitled "Preserving the Legacy." This book is actually the fifth in the series developed by INTELECOM Intelligent Communication is Association with the Partnership Environmental Technology Education. I was impressed with the prior book ("Basis of Industrial Toxicology") as I am with this one, the latest volume in the series. Not surprisingly, both have similarities in format that I found to my liking: well written, excellent (and copious) tables and illustrations, and questions at the end of each chapter to test the reader's (student's) understanding.

This book was designed for environmental technology students and its format follows the series pattern (noted above), 'featuring learning objectives, summaries, chapter-end reviews, practice questions and skill-building classroom activities.'

Although, I have been 'exposed' to industrial hygiene and industrial hygienists (actually having served on a committee that created a medical college industrial hygiene program), I am not an expert in the field. But I feel I know a lot more after reviewing the book. It is well-written and in it, the author presented adequate information for its designated task of educating industrial hygiene technicians.

The book has the following chapters:

- Introduction to Industrial Hygiene
- Toxicology Review
- Occupational Health Standards
- Airborne Hazards
- Sampling for Airborne Contaminants
- Indoor Air quality
- Controlling Airborne Hazards
- Occupational Skin Disorders
- Occupational Noise Exposure
- Ionizing and Nonionizing Radiation Ergonomics and Temperature Extremes
- Selection and Use of Personal Protective Equipment

The book also has seven short appendices, a glossary, and a bibliography. I must compliment the author on her method of citing OSHA Standards. Rather than reproducing the entire regulation, she gives the title of the sections.

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*Odor and VOC Control Handbook*, Harold J. Rafson, ed., McGraw-Hill, New York, NY, 1998, \$99.95, 637 pp., ISBN: 0-07-052523-4

Air pollution control (in the USA, at least) goes through phases in which control of one type of pollutant is emphasized. Currently, the focus is on organics, especially toxic organics. Thus the appearance of this book is timely, and it is comprehensive.

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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