ELSEVIER Journal of Hazardous Materials 54 (1997) 123–140

JOURNAL OF HAZARDOUS MATERIALS

Book reviews

Hazardous Air Pollutants: Assessment, Liabilities, and Regulatory Compliance,J.W. Bradstreet, Noyes Data Corporation, Park Ridge, NJ, 1995, $64.00, 385pp, ISBN: 0-8155-1386-0

The author writes in his preface:

"During the past ten years, state and federal regulations affecting hazardous air pollutants dilemma for industrial facilities. competitive and in compliance with have produced an escalating dilemma for industrial facilities. While struggling to remain competitive and in compliance with environmental regulations, industry faces increasing requirements and potential liabilities due to emissions of hazardous air pollutants.... These various regulations require industrial facilities to evaluate, control, monitor, permit and assess risk for a variety of listed chemicals considered hazardous air pollutants."

The first 100 pages are devoted to the regulations and (potential) understanding thereof. Chapters are devoted to (1) definition of air pollutants; (2) Title T11 of the 1990 Amendments to the US Clean Air Act; (3) other federal regulatory requirements; and (4) state regulation of hazardous air pollution (regulations of 13 US states California getting the most coverage).

Having defined the goals (as set by the law), the author goes on to assist the compliance engineer in defining the problem with chapters on (1) sources of hazardous air pollution (including point and area, i.e., motor vehicles), (2) how to inventory one's emissions of hazardous air pollution (included in the chapter is an excellent list of USEPA-authored "Control Technique Guidance Documents" (although the list is a little dated, i.e., 1977–1982), (3) measurement of hazardous air pollutants, (4) health risk associated with hazardous air pollutants (including a section on air dispersion modelling), (5) nuisance characteristics of hazardous air pollution and (6) liabilities associated with hazardous air pollutants (regulation and litigation)

Having well-defined the problem (in 276 pages), the author turns to what I consider the utility of this book; (1) emission reduction alternatives and (2) establishing and maintaining a HAP (hazardous air pollution) management program. The control techniques, however, are only briefly discussed without diagrams or theoretical governing equations. More on the topic is needed unless one assumes total reader familiarity with control systems.

The book ends with four appendices which are lists of hazardous chemical regulatory chemicals as defined by the various laws.

G.F. Bennett

Environmental Chemistry of Dyes and Pigments,A. Reife and H.S. Freeman (Eds.), Wiley, New York, NY, 1995, $99.00, 329 pp, ISBN: 0-471-5892-6

Environmental control regulations are pervasive, affecting every industry; the manufacture no exception. Thus the editors and use of synthetic colorants is collected 13 chapters in an attempt to comprehensively address the problems posed by environmental regulation and discuss solutions to them.

The chapters span a wide variety of topics concentrating mainly on wastewater. The treatment processes discussed are the commonplace ones, i.e, filtration, aerobic/anaerobic biological treatment and powdered activated carbon (PACT) processes. But newer processes such as ozonation was discussed, but, in my opinion, all too briefly, for its potential application. conversely, the PACT® process received almost 100 pages of text (too many, in my opinion).

By title, the 13 chapters are:

1. Carbon adsorption of dyes and selected intermediates
2. Sodium borohydride dye reduction in wastewater
3. Ozonation
4. Use of electrochemical technology to remove color and other contaminants from textile mill effluents
5. Chemical pretreatment and aerobic–anaerobic degradation of textile dye wastewater
6. The PACT® system for wastewater treatment
7. Operating experience with the PACT® system
8. Reduction of textile wastewater using automatic process control, recycle, and filtration
9. Membrane filtration techniques in dyestuff recovery
10. Chemical removal of phosphate ions from disperse dye filtrates
11. Mass spectrometry in the analysis of dyes in wastewater
12. U.S. safety, health, and environmental regulatory affairs for dyes and pigments
13. Regulatory affairs (international perspective)

G.F. Bennett

Proceedings of the Nineteenth Arctic and Marine Oil spill Program (AMOP) Technical Seminar, Calgary, Alberta, Canada, Environment Canada, Ottawa, Ont., Canada, 1996, 2 Volumes, 1635pp

Environment Canada has a keen interest in the Arctic and the potential impact of oil spills thereon. This agency has conducted much of the key research on this area of