



Book reviews

Water Pollution Control Technology: Concepts and Applications

Frank R. Spellman and Nancy E. Whiting; Government Institutes, Rockville, MD, 1999, 401 pp, US\$ 79.00, ISBN 0-86587-660-6

According to the book's back cover: "Written in an easy-to-read conversational tone, this new book provides readers with a thorough understanding of the concepts involved in monitoring, sampling, and regulating water pollution. It examines the relatively new field of water pollution control technology and focuses on applying engineering principles to the planning, design, construction, and operation of common water pollution control processes. Such processes include drinking water treatment and distribution, sewage disposal and water pollution control, and storm water drainage and control".

The suggested readers of the book are: environmental managers, attorneys, consultants, regulators and students. I do not agree. If any of the above groups other than students (and only those in the first semester of a non-engineering environmental science course) should find the book useful, I'd be surprised. It's just *too* simplistic. Perhaps that is my problem, for as a reviewer, professor and consultant, I have read too many very technical books on the topic.

Spellman and Whiting do a reasonably good job at explaining water and wastewater treatment processes in a 'conversational' easy-to-follow style. They did this using very short chapters and discussing the individual units of treatment plants, i.e. flocculation is covered in a three-page chapter; so is sedimentation; each separate unit operation had its own chapter. Simplistic diagrams are included, but no mathematical theory is given. A useful innovation was to provide a list of the definitions of terms used at the end of each chapter rather than placing them all at the end of the book.

The book has no mathematical problems given for student assignments, but it does give numerous review questions for each chapter. Chapter 5, however, is devoted solely to water pollution control technology calculations. Flow rates calculations, pressure, loading are all covered. But again, at a very basic level which I accord to treatment plant operators.

Another example of the lack of technical detail is the chapter on hydraulics and hydrology. Weirs and a Parshall flume shown as a method of measuring flow rate — but no equations are given to allow one to use them.

My overall assessment is that the book could be well suited for, as I said before, college students of a non-engineering course or for plant operators. It does a good job describing

the entire range of water and wastewater treatment processes. Other than that, it is just too simplistic for the described audience.

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Regulatory Chemicals Handbook

Jennifer M. Spero, Bella Devito and Louis Theodore; Marcel Dekker, New York, NY, 2000, 1072 pp, US\$ 195.00, ISBN 0-8247-0390-1

Given the complexity of US law, reference guides to chemicals, their management, use and disposal are a requisite for environmental control professionals. This book addresses that need. Companion books on the properties and dangers of chemicals also are needed on the shelf of an environmental professional.

This book, as the title containing the word 'regulatory' (addressing the first of these needs) implies, can be used to obtain information on the three major classes of regulated pollutants:

1. hazardous air pollutants (HAPs),
2. priority water pollutants (PWP),
3. occupational, safety, and health administration (OSHA) chemicals.

Data are given for more than 750 different chemicals, 185 HAPs, 125 PWP and 450 OSHA-listed chemicals, with two to three pages devoted to each chemical. However, the information provided for each chemical depends on that section under which it is discussed (as shown below).

The fields of information for HAPs are

- CAS# (Chemical Abstracts Service Registry Number)/DOT# (Dot identification)
- synonyms,
- physical properties,
- chemical properties,
- exposure routes,
- human health risks,
- hazard risk,
- measurement methods,
- applicable regulations,
- major uses,
- storage,
- fire fighting,
- exposure guidelines,
- personal protection,
- spill clean-up,
- general comments,
- health symptoms,
- key references.

The fields of information for the PWP are