Book review

INTRODUCTION TO POTABLE WATER TREATMENT PROCESSES

S. A. Parsons and B. Jefferson. Blackwells, 2006. ISBN 1-4051-2796-1, £29.99, 179 pp.

In our department, at Loughborough University, we were very pleased to see this book. This is a good time to be attracting graduates into the water industry. At the moment every week sees more comments in the media on uncontrollable leaks, devastating droughts, desertification by over-abstraction and wild floods. The textbook is still an important part of the quality of the self-learning process for graduates, and this is another reason to welcome a new book.

Many of us are also worried about how easy it is to download and paste whole sections of web-based material into student essays, design and practical reports, often without even reading it. Good quality textbooks make life easier for both the student and the lecturer and will help address this plagiarism issue.

This book, as the preface notes, is based on the lecture notes for the drinking water module of the Cranfield University Masters course. It is inexpensive, accessible, a good size to carry around and can be consulted in minutes. The book follows the standard pattern with introductory chapters on the regulations, standards, hazards and water sources. This is followed by chapters on coagulation, filtration, adsorption and disinfectants. These chapters are excellent with good diagrams, photographs and summarising

tables. A number of alternative process flow sheets are described in the source chapter; the reviewer's Loughborough University course takes this opportunity to discuss the importance of contaminant phase and particle size. Many think this is fundamental to the choice of process options and the evolution of the multi-barrier approach to design. Here this analysis is linked to membranes in chapter 7, so perhaps this is a suggestion for the second edition. As might be expected from Cranfield authors, the membrane chapter includes up-to-date material which will be of interest to practitioners and researchers, as well as the intended undergraduates. Along the same lines the Loughborough course includes discussions of river inlet designs and reservoirs as an aid to treatment, but also the likely problems associated with eutrophication. We also prefer to discuss removal of organics along with adsorption and oxidation, and certainly before disinfection.

The book closes with a chapter on sludge disposal options, although we in our areas found the UKWIR figures on sludge disposal route (60% going to landfill) difficult to swallow. Additional sections on the distribution system as an influence on quality sensors and control, and some calculations for students to try would certainly help. As will have become clear by now these are minor gripes and suggestions. This is an excellent book, ideally suited to its purpose and it is already on our recommended reading list. We strongly recommend it as the best currently available.

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