

researching the plants and developing a constructive dialogue with plant managers, citizens can help businesses become better, cleaner neighbors.”

To accomplish the goal, the authors give a series of worksheets (which essentially comprise the bulk of the book) to enable community activists to:

- develop a pollution profile of a local plant;
- identify other potential environmental or safety hazards created by the plant;
- gather information from publicly available data bases and other sources;
- focus discussions with plant personnel on source reduction policies and programs.

The book is clearly designed for the citizen activists — and ambitious ones at that, as the development of a company profile is very hard (and extensive work). But, the spotlight of publicity on corporations has caused significant progress in their program to reduce emissions in order to get out of the spotlight.

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*Principles and Practices of Waste Encapsulation*, by J.A. Caldwell and C.C. Reith, Lewis Publishers, Chelsea, MI, 1993, xx + 414 pp., US\$ 69.95, ISBN 0-87371-992-1

The title of this book is a little misleading, as it does not deal with what is normally designated as waste encapsulation — solidification/stabilization of wastes — but rather describes the design and construction of total containment landfills for encapsulation of solid or hazardous materials. The authors' major background is in the area of low-level radioactive waste management, and this continually comes through in their philosophies on waste management, but the processes and procedures they present are readily applicable to a wider range of waste types. The book covers the theory behind and the design of most of the predominant methods of landfilling, but most of the book deals with the authors' preferred method — total encapsulation in a multi-layered system. Descriptions are very detailed and easy to follow.

The book begins with a general depiction of a disposal cell and its components, and then moves on to in-depth discussions of the cover system, drains, liners, etc. Numerous charts are presented showing process alternatives, evaluation criteria and design information, making the book useful as a design tool. The graphics are excellent. Monitoring (hydrological, geotechnical and ecological) and maintenance of secure landfills is also described in detail, again with very helpful visuals and tables of evaluation criteria.

Real-world examples are used throughout and the last section of the book is devoted to a case study of a design for a uranium mill tailings landfill. The presentation is detailed enough that the reader can easily follow the authors' thought processes during the design.

I particularly enjoyed the opening of the book in which the authors described their thoughts on what constitutes design. This is one of the better presentations on the philosophy of design that I have seen.

In summary, this book is very narrowly focussed on design of total containment landfills, but contains a wealth of information on this subject and should be of use to anyone interested in waste landfilling.

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