

The chapters in the book are: 1. Introduction, 2. Procedures Leading to Cleanup, 3. Mechanical Cleanup Methods, 4. Chemical (Cleanup) Methods, 5. Sorbents, Gels and Foams, 6. Mobile Units.

There is a good introduction, listing the 44 summaries of the articles from the cited sources: 4 U.S. Coast Guard Reports, 11 U.S. EPA reports and the 4 National Conferences. The book runs to 406 pages; there is no index.

GARY F. BENNETT

Dioxin — Toxicological and Chemical Aspects, Edited by Flaminio Cattabeni, Aldo Cavallaro and Giovanni Galli, SP Medical and Scientific Books, a Division of Spectrum Publications, New York, 1978, 222 pp, \$ 20.

“*Dioxin*” — the word has almost entered the language as the epitome of pollution of the environment by man-made chemicals. Any future historian of environmental pollution will soon learn that two of the “classical” cases in the late middle twentieth century involved this then little-known chemical, better known in the scientific field as TCDD. The first incident brought to public notice was the spraying of wide areas of Vietnam with a defoliant contaminated with this by-product of the synthesis of the trichlorophenol herbicide precursor and the other, the eruption of a reaction vessel at the ICMESA factory in Seveso, Italy, distributing a quantity of this uniquely toxic material over the local populace.

As our historian searches the published sources he will doubtless find this book with its black heading and stark cover picture of Seveso cut off from the world by barbed wire and may be led to think that he had discovered an authoritative description of the incident, especially as the three editors were senior scientists at local laboratories who were called in to advise as soon as the incident was admitted. But no, this beautifully printed and bound, expensive, slim volume is but a record of a “workshop”, held some three months after the disaster occurred, at which leading world experts on the chemistry and analysis of TCDD, its toxicity and its possible destruction by environmental processes lent their combined wisdom to the Italian officials and organisations landed with the unenviable task of clearing up the mess. The individual contributions reported, with the exception of chapter one — an apologia for the delays in informing the public in the affected areas what had happened — are commendably lucid, erudite and concise but, because of the nature of the meeting, are “unfinished” in the usual scientific paper sense, being reports on the “state of the arts” of detection, identification and estimation and reviews and surveys of the toxicology of TCDD. I suspect most of the information contained in these contributions has or will be published in greater detail in acknowledged scientific publications and this publication is too ephemeral for the physical form given it.

What the end of this tragic story will be, may not be known for many years yet, until the children who played with the "snowflakes" that came out of a summer sky have lived through the induction period of any possible long-term effect. The one heartening aspect I got from this book, and my personal peripheral involvement in the Seveso incident, is the evidence that the members of the scientific world are capable of great generosity of self when uncluttered by political and nationalistic ties.

D.F. LEE

Industrial Wastewater Cleanup: Recent Developments, by A. Yehaskel, Noyes Data Corporation, Park Ridge, N.J., 1979, \$39, 308 pages.

The U.S. patent literature, according to the author, is one of the largest and most comprehensive collections of literature in the world. To have access to it in an organized fashion, is most helpful for both the researcher and developer.

In the book, Yehaskel has abstracted the U.S. Patent literature presenting data for almost 300 patent grants (in the numerical range 4,001, 109 to 4,127, 483) in the period from January 1977 to January 1978.

Although the data are available through regular patent literature sources, this compilation presents in one book those patents dealing with industrial wastewater cleanup and provides the reader with quick access to the patents in the field. One of the goals of the book is to describe a number of technical possibilities which may open up profitable areas of research and development via technology transfer.

Because of advanced methods, Noyes was able to put the book out early in 1979, about a year after the last patent reviewed (Jan. 1978). The book is mechanically well executed — typesetting, diagrams and index (by patent number, inventor and company), and a table of contents by subject. However, there were some minor features of concern to the reviewer: Adsorbents and reverse osmosis were incorrectly categorized under solid-liquid separation processes with flocculation and coagulation. The index is a mix of categorical treatment processes (such as coagulation and sedimentation) and industrial processes, i.e. there is one chapter on water treatment in the pulp and paper industry with subcategories of specific treatment processes. I feel the processes used in the pulp and paper patents here ought to be categorized under the categorical processes and cross-indexed by industry if one wants industrial categories. Other concerns include: (1) use of non-technical description in the introduction by describing industries that "spew forth polluted or untreated water to our waterways and streams", (2) use of ppm rather than mg/l in certain cases, (3) errors in conversion (both in one patent): 50 gal/ft²-day is not equal in 8.5 l/m² day, nor can a formulation add up to 116.2%.