panies using chemicals. The chapters contain information on the following topics:

- Safe Storage and Handling of Chemicals
- Respirators
- Selection of Protective Clothing
- Fire Protection
- First Aid in the Work Place

All of the chapters are authoritatively well written and remind me of similar material included in the earlier versions of Sax's major book but has been omitted in recent edition.

In summary, this is a useful book that should be the first choice for quick access to chemical data of those handling chemicals and wish to know their hazards and fire properties.

GARY F. BENNETT

Land Disposal, Remedial Action, Incineration and Treatment of Hazardous Waste; Proceedings from the Thirteenth Annual Research Symposium, compiled by U.S. Environmental Protection Agency, Hazardous Waste Engineering, Research Laboratory, Cincinnati, OH, July 1987, Reprint No. EPA/600/9-87/015, NTIS No. None, ISBN No. None, 526 pages, (no price available).

The U.S. EPA's annual research symposium in which their contractors present the results of the research they have carried out for the U.S. EPA have become recognized as one of the top "state-of-the-art" conferences. This one was no exception and the proceedings contain 52 full papers and 32 poster sessions (abstracts published only). The full papers are fairly concise, averaging a little more than nine pages each; the reprints of the poster sessions presentation were limited to one-page abstracts – but in all cases addresses were given for the authors of each poster presentation so an interested reader could correspond, if he wished, with the authors. The papers were broadly divided into two areas with approximately an equal number of papers in each:

- Hazardous waste land disposal
- Hazardous waste incineration and treatment

As with most conferences, the papers are of variable quality and depth, and span a wide range of topics. What the readers would classify as the best and most interesting papers (and it does with me) depends on one's research area and current interest. In the area of land disposal, I read several papers including one on U.S. EPA's Technical Handbook for Hazardous Waste Managers, one paper on stabilization/solidification and a third paper on remediation of

an old contaminated site. Of less personal interest were the incineration/destruction sessions, but I note those sessions contained much material on products of incomplete combustion (both laboratory and full-scale results), destruction of PCBs – dioxins and furans, mobilize incineration units, supercritical extraction and several papers on microbial treatment. The poster topics spanned both of the foregoing areas.

This is a book that those seriously involved in hazardous waste research or engineering must have on their shelves to be current first with research data and second to know who is involved with that research.

GARY F. BENNETT

Minimizing Employee Exposure to Toxic Chemical Releases, edited by Plummer, R.W., Stobbe, T.J., Mogensen, J.E. and Jeram, L.K., Noyes Publication, Park Ridge, NJ, 1987, ISBN. No.: 0-8155-1131-0, 257 pages, $44.

This book, describing procedures, for minimizing employee exposure to toxic chemical releases is actually the combination of three reports written for the U.S. Government. The first two reports, commissioned by the U.S. Department of Labor, Occupational Safety and Health Administration were:

- Collection of data and information on the Procedures for Minimizing Employee Exposure to Toxic Chemical Releases
- Personnel Protective Equipment Selection and Use During Epidisodic Chemical Release: A Review of Current Practices

The third report was written by Jeffrey O. Stull of the U.S. Coast Guard's Office of Research and Development; entitled the "Early Development of a Hazardous Chemical Protective Ensemble". Stull's report is on the same topic as a paper published by Stull in this journal (vol. 14, 1986, 165).

The objective of the first study was to collect data from chemical manufacturing facilities to determine procedures currently in practice to minimize chemical releases. To do this, the authors emphasized a three-phase approach to determine:

- What procedures are used to facilitate handling toxic chemicals (15 facilities were surveyed)
- What type of toxic chemical releases and accidents occurred in these facilities (numerous case studies are described)
- How the above information can be used to design procedures that will minimize toxic chemical releases and if a release does occur, what can be done to minimize employee exposure.

The second report addressed another aspect of risk control response in chemical operations, i.e. the use of personal protective equipment. It tries to