

*Biological Processes: Innovative Hazardous Waste Treatment Technology Series (Volume 3)*, by H. Freeman and P.R. Sferra (Eds.), Technomic Publishing, Lancaster, PA, 1991, ISBN 0-87762-618-9, 202 pp., \$ 49.00.

This volume is the third in a three-part series on innovative hazardous waste treatment processes. The first two volumes (both reviewed previously in this journal) covered thermal and physical/chemical treatment techniques, respectively. This volume, like the others in a series of papers, are all written by different authors – much like conference proceedings. The 21 different papers selected by Freeman and Sferra discuss a wide variety of biodegradation techniques for treating hazardous waste and hazardous waste-contaminated sites. Topics discussed are composting, enhancement of indigenous microorganisms, liquid–solids contact, various types of bioreactors, biotraps, immobilization and biosorbents.

GARY F. BENNETT

*Proceedings of the Fourteenth Arctic and Marine Oil Spill Program Technical Sensus*, by Environment Canada, Technology Development Branch, Environment Protection, Conservation and Protection, Ottawa, Canada, 1991, ISBN 0-662-58417-1, 673 pp.

These timely proceedings contain approximately 50 papers presented at Environment Canada annual seminar, held in 1991 in June in Vancouver BC. This volume contains a wide variety of papers contributed by authors from Canada, the United States and Europe with the following topics discussed:

1. Behavior and fate of oil
2. Biological degradation and biological effects
3. Activity reports and preparedness
4. Computer systems
5. The legal and social context
6. Risk analysis and state of the environment
7. In-situ burning
8. Spill countermeasures
9. Remote sensing and mapping
10. Shoreline cleanup
11. Recent spill incidents

To say the least, the papers span a wide variety of topics and topics of timely nature. Indeed the last paper was on the spill occurred during the Gulf War “Arabian Gulf Oil Spill: Shoreline surveys and Cleanup Guideline for Bahrain and Qatar.”