

by J.W. Kiceniuk and R.A. Khan (40 references) (especially timely in view of the crude oil spills in the Gulf of Mexico and Middle East waters in recent times), "Review of Ecotoxicity of Matacil in Freshwater Environment: Chemical and Phytobiological Impact Studies", by P. Weinberger and Roy Greenhalgh (22 references) (Matacil is an insecticide also known as aminocarb, used in Canada to control the spruce budworm in spruce and fir forests in Canada), "The Use of Algal Batch and Continuous Culture Techniques in Metal Toxicity Study", by P.T.S. Wong, Y.K. Chau and D. Patel (35 references), "Detailed Method for Quantitative Toxicity Measurements Using the Green Algae *Selenastrum capricornutum*", by G. Joubert (30 references), "Use of Algae in Aquatic Ecotoxicology", by R. Van Coillie, P. Couture and S.A. Vissar (41 references), and "Algal Fluorometric Determination of the Potential Phytotoxicity of Environmental Pollutants", by R.P. Moody, P. Weinberger and R. Greenhalgh (14 references).

The index is well done, and permits easy access to the wide variety of information in the volume. The volume should be of interest to professionals and graduate students in marine biology, limnology, ecology and systematics, chemical oceanography, water management, hazardous waste management, and general toxicology. It clearly reflects state-of-art views on the subjects covered.

H.H. FAWCETT

Proceedings: 1984 Hazardous Material Spills Conference: Prevention, Behavior, Control and Cleanup of Spills and Waste Sites, Government Institutes, Inc., 966 Hungerford Drive, 24, Rockville, MD 20850, 445 pages, \$56.

The above conference, which has been held every two years since 1972, took place in Nashville, Tennessee in April 1984, under the sponsorship of the Association of American Railroads/Bureau of Explosives, the Chemical Manufacturers Association, the U.S. Coast Guard, and the U.S. Environmental Protection Agency.

Under the co-chair of the U.S. Coast Guard and the U.S. EPA, the meeting presented papers arranged in the following major areas: Case Histories (8 papers); Cleanup (11 papers); Data Support Systems (3 papers); Detection/Monitoring (8 papers); Dioxin (5 papers); Government Programs (4 papers); Modeling/Risk Assessment (7 papers); Personnel Safety (7 papers); Regulatory Considerations/Community Relations (5 papers); and Training (10 papers).

The case histories provide a diverse set of emergencies, including 62,000 tons of material contaminated with solvents at an Army depot; a hazardous waste processing site; a chemical plant clean-up involving 1,095 55 gallon

drums and 21,000 gallons of liquid wastes; an incident involving a small but highly noticeable leak of vapors from a barge being carried on a LASH vessel, SS *Sam Houston*, where butyl acrylate vapors escaped due to "breathing" through the bungs; a procedure to determine the contents of a severely corroded chlorine tank car (found to be empty); control of a 20,000 gallon formaldehyde spill from a rail accident; an acetic anhydride spill where 20,000 gallons escaped in Wisconsin; and polychlorinated biphenyl removal from a river in Michigan. Especially interesting is the section on training of personnel to cope with future emergencies.

This book contains papers which will be cited for many years in all spill studies, and should be on the library shelf of all chemists and chemical engineers who handle hazardous chemicals. They should join the other six volumes in the series.

H.H. FAWCETT

Hazardous Materials Transportation: A Legislator's Guide, by L. Abbott, G. Bulanowski, B. Foster and Julie Jordan, edited by S. Bjorkman, National Conference of State Legislatures, 1125 Seventeenth St., Suite 1500, Denver, CO 80202, February 1984, paperback, 137 pages, \$15.00. Address orders to D. Turner at above address.

This is a long-overdue discussion of the interface between the U.S. and state/local governments in the control of the movements of hazardous cargoes. Produced by a grant from the U.S. DOT, the book provides a working document for state and county legislative groups who seek cooperation with the federal laws and regulators — a desire which frequently has been overlooked in the past. The problem is approached in terms that hazardous material incidents will continue to occur, and that only intelligent cooperation can minimize the consequences.

The hazardous materials transportation system is reviewed in terms of the overall problem, with estimates that 250 million tons of chemicals are produced a year, with much of it considered "hazardous" by the legal definitions. Sixteen million tons of anhydrous ammonia are moved annually, and 16 million barrels of petroleum are consumed daily. No firm figures are presented on the different modes which move materials, such as rail, highway, ocean, inland water, air and pipeline, but the prediction is that the quantity will increase. Nuclear materials, such as low-level radioisotopes, nuclear power plant fuel elements, and related radiation-emitting sources, are noted. An incident may involve highly dangerous materials, or materials which are not life threatening to a large area, and only proper identification and prompt response will help.

The major thrust of the book is that the federal funds in various forms which have been available over the years are being cut, and the states and