

models, such as the effect of wind shear, and of droplet aerosols. This reviewer was especially pleased to see the experimental evidence presented by Hall et al. on the subject of the variability of peak concentrations resulting from repeated releases under nominally identical conditions (in a wind tunnel). Since there seems no reason to suppose that such variability would not occur at full scale, this has an especially important bearing on what we mean by agreement between model predictions and field data, and how variability can be modelled reliably for purposes of hazard range estimation.

The book has been prepared from camera-ready copy, with (mostly) good quality originals, but with a few figures that are difficult to read. This has been perhaps a necessary economy to produce a book that is excellent value at the price.

R.F. GRIFFITHS

*Scientific Basis for Nuclear Waste Management: Vol. 1*, G.J. McCarthy (Ed.), 1979, 563 pp., \$ 49.50; *Vol. 2*, C.J.M. Northrup (Ed.), 1980, 936 pp., \$ 65.00; *Vol. 3*, J.G. Moore (Ed.), 1981, 632 pp., \$ 49.50; Plenum Press, New York.

These three volumes consist of the proceedings of three international meetings held in Boston, Massachusetts, as part of the annual meeting of the Materials Research Society. Truly international in the scope of the participating authors, these proceedings mark the emergence of this subject from being a somewhat unattractive and neglected area in the nuclear field to its present position as an issue of great importance both politically as well as technically.

The papers presented have been grouped into the following subsections, the number of papers being shown in brackets:

- Vol. 1 — Waste Solidification Forms (27); Waste Isolation (28); Cement and Concrete in Solidification and Isolation (5); Treatment and Isolation of Other Wastes (5); Modeling and Safety Assessment (6).
- Vol. 2 — Overviews of Nuclear Waste Management (9); Waste Forms (35); Waste Isolation (38); Modeling and Safety Assessment (20); Processing of Nuclear Wastes (8).
- Vol. 3 — Repository Characterization (8); High-Level Waste Forms (17); Non-High-Level Waste (9); Natural Analogues (6); Leach Studies (10); Radiation Effects (7); Radionuclide Migration (7); Engineered Barriers (7); Performance Assessment (6).

The papers have all been refereed and each volume has both author and subject indexes. These edited proceedings are a cut above the normal run of such publications, giving an appropriate forum to this now rapidly developing subject. Prospects of a fairly limited market make the price rather high, but the international scope means that these books will be of considerable

interest, although it must be expected that their content will be superseded in a few years as the field continues its current development, and as the preferred options emerge from the large number of contenders currently being examined.

R.F. GRIFFITHS

*Trihalomethane Reduction in Drinking Water: Technologies, Costs, Effectiveness, Monitoring, Compliance*, by G. Culp (Ed.), Noyes Publications, Park Ridge, NJ, 1984, 252 pages, \$47.

On November 29, 1979, the U.S. Environmental Protection Agency promulgated an amendment to the National Interim Primary Drinking Water Regulations to control trihalomethanes (THMS) in drinking water. This amendment established a maximum containment level of 0.01 mg/l and required municipalities to monitor THMS levels. Communities which use a disinfectant and serve more than 750,000 people were to monitor and be in compliance with the maximum allowable THMS levels in one and two years, respectively. Communities of 10,000 to 750,000 had an extra year allowed for each task.

This book is a reprint of three recent reports written by or submitted to the U.S. Environmental Protection Agency:

1. Evaluation of Treatment Effectiveness for Reducing Trihalomethanes in Drinking Water
2. Technologies and Costs for the Removal of Trihalomethanes from Drinking Water
3. Trihalomethanes in Drinking Water — Sampling, Analysis, Monitoring and Compliance

The purpose of these reports was to aid communities in attaining these goals.

GARY F. BENNETT

*Environmental Sampling for Hazardous Waste*, by G.E. Schweitzer and J.A. Santolucito (Eds.), American Chemical Society, Washington, DC, 1984, ACS Symposium Series, No. 267, 133 pages, \$34.95.

The American Chemical Society has published another excellent book that emulates from one of its professional meetings. Specifically, this text is based on a workshop sponsored in February 1984 by the Committee on Environmental Improvement of the ACS, the U.S. Environmental Protection Agency and the University of Nevada — Las Vegas. It is not surprising then that the majority of the 13 speakers whose papers were printed were from those organizations.