*An Ounce of Prevention*, 35 mm slides with audio cassette, 20 min., League of Women Voters Education Fund, 1730 M St., N.W., Washington, D.C. 20036 U.S.A. (available on loan).

The on-going effort to clean-up the estimated 6,000 hazardous waste dumps in the U.S., now scheduled into the 1990 decade, has largely overlooked the desirability of reducing the present output of approximately 250 million tons per year. This slide—tape presentation by the League is intended to encourage citizens to actively participate in an effort to reduce this tonnage by 50 to 80%. To do so requires a closer look at the proper management of wastes produced today and tomorrow. To break the cycle of increasing waste loads and disposal problems, with their serious economic impact, as well as environmental and human aspects, four steps are suggested:

- waste abatement (where a company tries to eliminate or reduce by chemical substitution or process changes, as in the electroplating industry in the example cited)
- waste minimization (by good housekeeping practices including segregation of waste streams and solvents, and close monitoring of potential leaks (as in printed circuit board manufacture, as cited)
- waste reuse (or recycle), used as is or exchanged for other manufacture use elsewhere)
- waste recycling (or treatment) to recover a product which can be used as a raw material (especially important for large companies with many divisions and diverse chemical activity)

The presentation is of excellent quality, and should serve a useful purpose if presented to the proper audiences.

H.H. FAWCETT

*Atmospheric Dispersion of Heavy Gases and Small Particles*, by G. Ooms and H. Tennekes (Eds.), Springer-Verlag, Berlin, 1984, ISBN 3-540-13491-3 and 0-387-13491-3, 440 pages (no index), $ 38.50.

This book contains 31 papers that were given at a conference held in The Netherlands in August 1983. The papers consist of reviews, reports of experiments in the field, the lab, water channels and wind tunnels, as well as descriptions of developments in theoretical and modelling problems. Inevitably, at such a meeting material that has already been published elsewhere will be repeated, and this case is no exception. However, there is relatively little of this type here, and there are many important papers that will be necessary reading for those working in this field.

Of particular interest are the papers describing work on some of the processes known to occur, but not usually included in the current generation of

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