

Ground Water Quality Protection: State and Local Strategies, by the Committee on Ground Water Quality Protection, Water Science and Technology Board, National Research Council, National Academy Press, Washington, DC 20418, 1986, 294 pages, \$25.00.

If prevention is a more effective and economic approach to ground water pollution than emergency actions and clean-ups of toxics, this report, prepared by a committee for the U.S. Environmental Protection Agency, should be a valued windsock.

The committee studied information from a wide spectrum of state and local governments, industry, and other groups, recognizing that more than 50% of the U.S. drinking water and 80% of its rural domestic and livestock needs are supplied by ground water, withdrawals of which approximate 95 billion gallons per day, or about one-fifth the fresh water use (the other four-fifth is from surface water). Growing public concern has been manifested as cases of significant contamination are confirmed.

Although the Federal Safe Drinking Water Act and other laws, including RCRA and Superfund, are in place, much is still left to state and local agencies to implement these and more local laws.

Specific programs in Arizona, California, Colorado, Connecticut, Florida, Kansas, Massachusetts, New Jersey, New York and Wisconsin as well as local programs in Dade County, Florida, Cape Cod, Massachusetts, and Long Island, New York are studied, and their relative benefits and costs noted. For example, the 1984 Wisconsin Act 410 requires that each regulatory agency identify all substances already detected or likely to enter ground water. The state then sets an "enforcement standard" and a "Preventative Action Limit" (PAL) for each substance. Currently, enforcement standards have been proposed for over 50 substances, and more are under development.

The report should be of value to anyone concerned with the prevention approach to ground water contamination.

H.H. FAWCETT

CHRIS Hazardous Chemical Data Manual, U.S. Coast Guard Publications, available through the Superintendent of Documents, Government Printing Office, Washington, DC 20202, 1985, 2200 pages.

The Chemical Hazardous Response Information System (CHRIS) is designed to provide information on chemicals to U.S. Coast Guard personnel to allow them to make decisions in emergencies occurring during the water transport of hazardous chemicals. Fortunately, all versions of CHRIS, which was first published in 1974, have been made available to the public. As I recall, the 1974 CHRIS Handbook was the first really good hard copy chemical data manual I used and continue to use. The new version has

retained the same base format but with a greatly expanded number of chemicals. The USCG press release notes there are more than 2200 pages containing data on 1200 chemicals. I know the manual is 5 inches thick in 1985 vs. 2 inches in 1974 or 2½ times larger.

All chemicals are listed alphabetically. For each of the numerous chemicals listed, the manual gives the specific chemical's physical and biological data and emergency response information. Using a standard form; complete data in 12 categories are given:

1. Response to Discharge — Fire, Exposure, Pollution
2. Labels
3. Chemical Designation
4. Health Hazards
5. Fire Hazards
6. Chemical Reactivity
7. Water Pollution (Water Toxicity)
8. Shipping Information
9. Hazard Assessment
11. Hazard Classification
12. Physical and Chemical Properties

Prior to the Chemical Data Sheets, there is an introduction section containing:

1. Description of CHRIS
2. Explanation of terms
3. Other information systems
4. Conversion factors
5. Selected properties of fresh water, sea water, ice and air
6. Guide to compatibility of chemicals
7. Index of synonyms
8. Index of codes
9. Data sources (References)

If I were limited to a single data source for an emergency response, the CHRIS Chemical Data Handbook would be the one I would want. It is simply excellent and in my personal opinion should be in the library of every hazardous materials response entity.

GARY F. BENNETT

Environmental Applications of Chemometrics, by J.J. Breen and P.E. Robinson (Eds.), American Chemical Society, Washington, DC, 1985, 286 pages, \$54.95.

As with many ACS publications, this book was developed from a symposium (in this case sponsored by ACS' Division of Environmental Chemistry at the August 1984 meeting in Philadelphia, PA).