

## Book Reviews

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*Lime for Environmental Uses*, by K.A. Gutshick (Ed.), ASTM Special Technical Publication 931, ASTM, Philadelphia PA, 1987, ISBN 0-8031-0499-5, 147 pages, softcover \$29.00.

In 1985, an ASTM Committee held a symposium on the use of lime in environmental situations. It was a narrowly focussed symposium, but the 12 papers presented in the seminar covered the topic thoroughly. It was a timely topic because lime's use in the treatment of water, wastewater and SO<sub>2</sub>-bearing air emissions has increased significantly in the past 20 years, while industrial use (in construction) has declined. Clearly, the environment is now an important market for lime (22.3% of total use) compared to its relatively small use (6.3%) in 1960.

Published papers dealt with lime's use in several media.

- gas: scrubbing/desulfurization/fixation
- solids: hazardous waste fixation; treatment of wastewater
- sludge: soil stabilization.

The papers in my area of competence – hazardous waste stabilization and sewage sludge treatment – were thoroughly read and appreciated. They were excellent.

Overall, it must have been a great seminar because it did produce a very good book.

GARY F. BENNETT

*Training Aid Review – Compressed Gases in High Tech Facilities*, Four VHS video training modules with corresponding training manuals: Module I: Health Effects – 26 minutes; Module II: Safe Handling Rules – 47 minutes; Module III: Hardware Systems – 30 minutes; Module IV: Cylinder Change and Purge Procedures – 20 minutes. Produced by Larry Fluer, MARSAM Co., 700 Aldo Ave., Santa Clara, CA 95054, 1986. Modules I, III and IV, \$750 each; Module II, \$1,000; all four modules \$3,000.

The legal as well as increased concerns for adequate training of personnel in technical matters has brought increasing awareness of the necessity for properly organized and presented information on a wide front. This program is intended to increase awareness of personnel in the health, physical aspects, hardware, administrative and personnel controls, and other necessary input,

compressed gases are used in large quantities and wide variety in laboratories and production units.

Gases reviewed range from hydrogen to silane, and cover the wide spectrum of prudent handling and use. The program is very practical and "down-to-earth" in its approach. Each video tape (whose production reflects high professional standards) is accompanied by a written curriculum outline and instruction manual, suitable for use by professors, management, and supervisors in conducting training courses.

This reviewer was especially impressed by modules I and II, which ideally should be part of the training and orientation of all graduate students and industrial research workers who use or are exposed to compressed or cryogenic gases. The hazards of several gases are discussed in a "no-nonsense" manner that should appeal to anyone interested in safe use of gases. Modules III and IV are more oriented to management and the procedures and hardware aspects. Frequent mention is made of the Compressed Gas Association, the National Fire Protection Association, the National Electrical Code, and the American National Standards Institute – of whom all have important inputs.

If a program such as this could be incorporated into graduate courses, as well as industry training as required now under OSHA Hazard Communication Rule and the reporting aspects of Title III of PL 99-499, as well as for the forthcoming OSHA laboratory regulations, the cause of safety would be greatly advanced.

It is hoped that increased distribution of the program will result in lower prices for the modules. The course is an excellent education achievement.

HOWARD H. FAWCETT

*Ground Water Quality Protection*, by Larry W. Canter, Robert C. Knox and Deborah M. Fairchild, Lewis Publishers, Inc., 121 South Main Street, Chelsea, MI 48118, U.S.A., 1987, ISBN 0-87371-018-5, 562 pages, \$54.95.

This book summarizes a broad body of knowledge on methods and strategies for investigating ground water quality. Only in the final two of the book's eleven chapters do the protection and management of groundwater come into focus. Prior to selecting management strategies and protection technologies, however, engineers and regulators must understand a broad spectrum of factors. The strength of this book is its comprehensive listing of technical issues and critical questions that must be dealt with prior to selecting and implementing remedial steps to protect groundwater. Any ground-water professional will find this reference useful for reviewing material outside one's area of specialization.