

*A Guide to Underground Storage Tanks. Evaluation, Site Assessment, and Remediation*, by P.N. Cheremisinoff, Prentice-Hall, Englewood Cliffs, NJ 07632, 1992, ISBN 0-13-369976-5, 367 pp., \$59.00 (plus postage).

Groundwater contamination from underground storage tanks continues to be a major environmental, legal, and economic concern. Tanks store a wide variety of liquids, including gasoline, oil, other fuels, process chemicals, hazardous and toxic materials and waste.

This is a very realistic and practical volume, printed in relatively large type, which reviews the overall problems and also many details. Beginning with the federal legislation in the US (RCRA Subtitle I — Regulation of Underground Storage Tanks (USTs)) and updated to April 17, 1987 when EPA proposed regulation of such tanks to control the major causes of releases from such systems, it considers corrosion controls, proper installation requirements, and spill and overfill prevention measures. These requirements are presented in a tabular form easy to read and understand. The recommendations of the US National Fire Protection Association are also discussed.

Piping details for the tanks are plainly outlined, and the piping and the piping arrangement of external pumps is noted in detail to prevent future failure modes. Physical and chemical properties of toxic gasoline components are tabulated, and plumes are drawn showing methods by which groundwater can be contaminated. Several leak-monitoring techniques are discussed and compared. Corrosion from external as well as internal sources are analyzed in detail. Selection of the proper tank materials of construction is tabulated for nearly 100 chemicals, with specific ratings for various tanks/contents. Positive action for correction of misadventures is given, as is water testing and treatment. A detailed glossary of 14 pages and an index complete the volume.

This is a highly legible volume on the subject of underground storage tanks and should be widely read and referenced by engineers, technicians, metallurgists, chemists and contractors. Without reservation we recommend it.

HOWARD H. FAWCETT

*Fundamentals of Environmental Science and Technology*, by Porter C. Knowles (Ed.), Government Institutes, Rockville, MD, 1992, ISBN 0-86587-302-X, 131 pp., \$24.95.

*Fundamentals of Environmental Science and Technology* is intended as a basic primer for those working in many different positions of environmental responsibility often with different backgrounds. The concept is an excellent one. The contributors are all from Dames and Moore, a major U.S. environmental consulting firm. There is a series of 12 short (approximately 10-page)