Health and Safety beyond the Workplace, edited by L.V. Cralley, L.J. Cralley and W.C. Cooper, Wiley/Interscience, New York, NY, 1990, ISBN 0-471-50452-1, 323 pp., $59.95.

While "health and safety" have been recognized to some degree for years, the focus has usually been on "occupational" aspects. This volume breaks new ground by spotlighting the "real world" activities that produce far more hazardous potential than industry, since the "real world" has many activities little recognized as hazardous.

The editors have selected 22 co-authors to develop chapters on highly diverse subjects, including arts and crafts, home gardening, home improvements and repair, household chemicals (an especially well-treated analysis of "under the sink" hazards), indoor air pollution, ionizing radiation (including sources of non-occupational exposures), non-ionizing radiation and fields, outdoor recreation (sunlight, UV, heat, cold, noise and polluted air), food (details of both harmful and beneficial components), potable water, alcohol and tobacco. Each chapter has extensive references, many to sources which are not familiar to a casual reader.

This book is an analysis of off-the-job activities, and is highly recommended for anyone interested in health and happiness.

HOWARD H. FAWCETT

Safety in the Process Industries, by Ralph King, Butterworth–Heinemann, London, ISBN 0-7506-1019-0, 762 pp., $120 or £222.00..

In the introduction to this volume, destined to become a classic reference, the author, a British chemical engineer, notes that the main hazards of the process industries arise from the escape of process materials which may be inherently dangerous to life, and/or are present at elevated pressures and abnormal temperatures. Large and sudden escapes may cause explosions, toxic clouds and pollution whose effects extend far beyond the works perimeter. An international viewpoint is presented by reference to the many misfortunes in various countries over a number of years.

The 23 chapters fall into four major topics:

Part I, Setting the Stage, (five chapters) includes a historic review of losses for the UK and US, and notes no real improvement over the few decades for which data are available.

Part II contains eight chapters which review various hazards – chemical, mechanical and physical. These include electrical hazards, health hazards, explosion and flammability, corrosion, hardware hazards, and both the Dow and the Mond indices of fire, and the explosion hazard rating of plants.

Part III contains five chapters devoted to hazard control in design and maintenance, including reliability and risk analysis, active protective systems and instrumentation, designing for safety, maintenance and inspection, and safe work permits.
Part IV includes five chapters devoted to management, production and related topics.

In every chapter, excellent photographs and graphs, supplemented with many references from both U.K. and U.S. sources are included.

This book should be well received, and is recommended without qualification to anyone who is concerned with or involved in plant safety and health, regardless of their national bias.

HOWARD H. FAWCETT

Radon, Radium and Uranium in Drinking Water, edited by C.R. Cothern and P.A. Rebers, Lewis Publishers, Inc., Chelsea, MI, 1990, ISBN 0-87371-207-2, 286 pp., $69.95

Recently the U.S. Environmental Protection Agency has proposed regulations for radionuclides in drinking water. The readers may be interested in finding out the technical aspects such as source, analysis, risk and treatment technology of radon in water. This book concentrates on radon, radium and uranium in drinking water, and is written by 31 authors.

There are 17 different papers covering various aspects of radionuclides in drinking water. The main themes of each paper are as follows:

(1) Regulations
(2) Health risk
(3) Risk assessment
(4) Treatment technology
(5) Transfer of radon into house
(6) Theory of radiation carcinogenesis
(7) Geology
(8) Occurrence of radon in the drinking water
(9) Economic analysis of radionuclide removal
(10) Absorption of soluble uranium by humans
(11) Laboratory determination of uranium
(12) Removal of uranium
(13) Measurement of radon in water
(14) Analytical techniques for the determination of radium
(15) Rationality of radon removal
(16) Removal of radium
(17) Disposal of radium

There is some overlap of material from one paper to another.

The discussion includes graphs and tables. The book provides an overview on the radon problem in water. References are included with each paper. The