

local authorities must find other sources of revenue, and other approaches than the federal authority. The Federal Regulatory program is reviewed in terms of hazardous materials transport, as is federal enforcement. The question of federal preemption is considered. Regulatory issues of particular interest are discussed, including the routing of hazardous materials (including radioactive materials), the prenotification requirements (28 local jurisdictions and 17 states have some prenotification requirement at present), emergency response and the coordination of federal with state and local authorities to achieve the maximum effort in the shortest time and expense framework, and for more inspections both by industry and by state and local police officers who have been especially trained to coordinate such activity. Several case-histories are given which show that such cooperation, especially in emergency control can, in fact, be fruitful.

The field of hazardous waste has not been neglected, it being noted that 20 states have developed some "state Superfund", and also cooperate with the federal EPA in control and clean-up. Especially interesting is the discussion of good Samaritan legislation, which exists to various degrees in 24 states (which are tabulated; their various laws are listed in detail). This is of considerable significance, since the person with specialized expertise who offers his or her help should be protected from legal action later.

The Colorado Training Institute (CTI) in Denver, which educates response personnel and others in hazardous materials awareness and safety, is discussed. The regulatory and enforcement agencies for hazardous and radioactive materials (by states) are tabulated. A review status of federal hazardous materials regulations adopted by states as of March 18, 1983 is tabulated, as is the status of federal motor carrier safety regulations adopted by states as of June 15, 1983. Resources, notes, a glossary, and selected references make up the balance of the book.

In view of the "deregulation" and "budget-cutting" themes current in the U.S. at present, this booklet is well worth being considered by all state and local administrators, since the initiative by the state and local officials is more important now than ever, if hazardous materials are to be controlled in the public interest.

H.H. FAWCETT

Dangerous Properties of Industrial Materials (6th edition), by N.I. Sax, Van Nostrand Reinhold Co., New York, NY, May 1984, 3124 pages, \$198.00.

In reviewing the fifth edition of this work, G.F. Bennett noted the significant increase in size and weight since the previous edition, as follows:

	Fourth edition	Fifth edition	Sixth edition
Number of pages	1258	1118	3124
Size	18 cm × 26 cm	22 cm × 28 cm	22 cm × 28 cm
Weight	1.79 kg	2.62 kg	5.68 kg

This increase in size and weight was obtained by cutting back on the “informative” background editorial material, and adding 4,000 new materials, so that the book now covers 18,000 industrial and lab materials, with 40,000 synonyms indexed for crossreference, with their CAS and NIOSH identification numbers (useful for on-line searches), and other data.

Section 1, “Toxicity and Toxicology”, by T.J. Haley, 8 pages, covers the recognized toxicity rating system used in the main body of the book, discussing dosage, toxic levels, classes of toxics, routes of absorption, and biotransformation, individual sensitivity, acute and chronic effects, sites of action, prevention and treatment, as well as allergy. No references are given in this section.

Section 2, “Industrial Air Contamination Control”, by B. Feiner, occupies 22 pages, beginning with alternative methods of control instead of ventilation (such as process changes and substitution, isolation, and respiratory protection). No mention or reference is made of the ANSI Z88 code, which is the recognized American standard on respiratory protection. The statement that “the universal gas-mask canister protects against a number of contaminants, including carbon monoxide”, while true, may give a false sense of security to the poorly informed — fatalities have occurred just this way, because the limits of exposure are not known or fully appreciated. Control by ventilation is given good coverage, and it explains local control systems such as hoods and other arrangements, both in words and line drawings. Energy conservation is not neglected, and while recirculation problems are noted, these are not stressed. Sixteen references are given, the most recent dated 1976.

Section 3, “Industrial and Environmental Cancer Risk”, by Elizabeth Weisburger is only six pages long but is a gem. It reviews the general cancer picture, with specific notations on formaldehyde, plasticizers, ethylene oxide, PBB, dioxin, cadmium, tobacco products (chewing as well as smoking), food additives and nitroso compounds. Nine references, many of 1983 date, accompany this section.

Section 4, “Occupational Biohazards”, by B. Feiner, occupies 12 pages, including revealing new tables on zoonosis, the occupational and potential biohazard exposure, target organs, principal effects, specific prevention, and control techniques. Equipment and other measures such as biological safety cabinets are diagrammed and described, and occupational biohazards in hospitals discussed. Recent references are featured in the 25 items cited.

Section 5, “Nuclear Medicine Application, Benefits and Risks”, by J.J. Fitzgerald, is 18 pages long, and describes the use of radioisotopes, X-rays, NMR, and computerized tomography in medical diagnosis and treatment.

Monoclonal antibody applications are itemized, and cardiac pacemakers described. Radiation protection and control are covered, with 12 references, 3 of which are from 1982-83.

The major section of the volume is the reference to approximately 20,000 materials, in alphabetical order, covering 2603 pages. This is supplemented with a synonym index with nearly 50,000 entries, and a code for the 2000 references. From A-200 Pyrinatate to ZZL-0810, each entry is accompanied by identification numbers, molecular formula, molecular weight, synonyms, toxicity data, disaster hazard, flammability data, and fire extinguishing agents where known. We salute this effort, which doubtlessly will be of considerable use, but we question the inclusion of all the toxicity references from the NIOSH RTEC, which is now available on a quarterly basis on microfilm and hence more up-to-date. A selection indicating the ranges of toxic effects would have reduced much of the volume of the book. Care must be taken in reading such statements as "aniline is a common air contaminant" (page 281), or, in describing polychlorinated biphenyls, "when heated to decomposition, it emits tox fumes of Cl⁻" (page 2251), so that such oversimplifications are not recorded as absolute facts without full references.

The volume will doubtlessly be of value, especially if backed with on-line computerized data bases of current vogue.

H.H. FAWCETT

How to Plan an Effective Employee Hazard Communication Program and Safety Data Sheet and Label Program for "Right-to-Know" Regulations, by Charles J. O'Connor and Jay A. Young, edited by L.W. Bieriein, Labelmaster, 5724 N. Pulaski Road, Chigago, IL 60646, 1984, paperback, 18 pages text plus 68 pages reprint from *Federal Register*, no index or illustrations, \$35.00.

In a day when "deregulation" is the theme, it is unfortunate that the Occupational Safety and Health Administration (OSHA) of the U.S. Department of Labor would issue a final rule on a regulation that does not clearly and simply state its intent. Unfortunately, the 68 pages of the *Federal Register* for November 25, 1983 (pages 53280-53348) on Hazard Communication under CFR 29.1910.1200 is a performance-oriented regulation which requires more than a casual reading for even technical personnel to understand and, hopefully, comply. The introduction to this booklet by lawyer Bieriein attempts to explain the "why"; the remaining 15 pages by two chemical experts, Professor Young and Dr. O'Connor, try to bring the text of the regulation into focus in layman's terms. Essentially, the regulation requires manufacturing industries covered by Standard Industrial Classification 20 through 39 to establish a hazard communication