drums and 21,000 gallons of liquid wastes; an incident involving a small but highly noticeable leak of vapors from a barge being carried on a LASH vessel, SS *Sam Houston*, where butyl acrylate vapors escaped due to "breathing" through the bungs; a procedure to determine the contents of a severely corroded chlorine tank car (found to be empty); control of a 20,000 gallon formaldehyde spill from a rail accident; an acetic anhydride spill where 20,000 gallons escaped in Wisconsin; and polychlorinated biphenyl removal from a river in Michigan. Especially interesting is the section on training of personnel to cope with future emergencies.

This book contains papers which will be cited for many years in all spill studies, and should be on the library shelf of all chemists and chemical engineers who handle hazardous chemicals. They should join the other six volumes in the series.

H.H. FAWCETT

Hazardous Materials Transportation: A Legislator's Guide, by L. Abbott, G. Bulanowski, B. Foster and Julie Jordan, edited by S. Bjorkman, National Conference of State Legislatures, 1125 Seventeenth St., Suite 1500, Denver, CO 80202, February 1984, paperback, 137 pages, $15.00. Address orders to D. Turner at above address.

This is a long-overdue discussion of the interface between the U.S. and state/local governments in the control of the movements of hazardous cargoes. Produced by a grant from the U.S. DOT, the book provides a working document for state and county legislative groups who seek cooperation with the federal laws and regulators — a desire which frequently has been overlooked in the past. The problem is approached in terms that hazardous material incidents will continue to occur, and that only intelligent cooperation can minimize the consequences.

The hazardous materials transportation system is reviewed in terms of the overall problem, with estimates that 250 million tons of chemicals are produced a year, with much of it considered "hazardous" by the legal definitions. Sixteen million tons of anhydrous ammonia are moved annually, and 16 million barrels of petroleum are consumed daily. No firm figures are presented on the different modes which move materials, such as rail, highway, ocean, inland water, air and pipeline, but the prediction is that the quantity will increase. Nuclear materials, such as low-level radioisotopes, nuclear power plant fuel elements, and related radiation-emitting sources, are noted. An incident may involve highly dangerous materials, or materials which are not life threatening to a large area, and only proper identification and prompt response will help.

The major thrust of the book is that the federal funds in various forms which have been available over the years are being cut, and the states and

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 Samaritian 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: