

than to merely seal them in 55-gallon drums and cart them off to a landfill. It's less expensive still to dump wastes along the side of the road when no one's looking; as a result, "midnight dumping" has become big business in the industrialized Northeast where licensed, secure disposal sites are few and operating at capacity. Congressional hearings by Robert Eckhardt's (D-Tex.) Commerce subcommittee on oversight and investigations have even found signs that organized crime has entered the illegal hazardous-waste dumping business — a sign of its lucrative nature.

Compounding the problem is a growing reluctance by local communities to permit the siting of new waste-disposal sites or destruction plants "in their own backyard." "This attitude is aggravating an already serious shortage in the capacity of available waste-disposal facilities to handle the growing volume of wastes.

A report by the General Accounting Office in December said that an estimated 1.7 million metric ton shortage in available disposal capacity — presumably among facilities managing wastes in an environmentally acceptable manner — is believed to be a minimum projection and could even seriously underestimate the problem. The report was based primarily on data for 12 industries and does not account for the burden remedial cleanup of illegal sites could add if the government begins prosecuting in earnest.

The figure also basically ignores wastes currently stored on a waste generator's own property — 70 to 80 percent of all that is produced. The GAO report says "onsite disposal generally has not been any better than offsite disposal. Based on EPA case studies, 63 percent of the damage incidents were attributable to onsite disposal."

Previous hearings by Eckhardt's subcommittee seem to bear out this charge. Confidential correspondence from Hooker Chemical Co.'s own files, released in hearings last month, documents contamination of groundwater and surface water at or near many of its sites. Surveys at its Taft, La., site, for example, confirmed migration of asbestos and chlorine into ground- and surface water. Other organic chemicals were found in groundwater there and at its Montague, Mich., site.

Investigating the Hooker situation — one not unique to its industry — the Washington Post found that the State of Michigan is suing Hooker over contamination from its Montague dump. (Hooker has committed \$11.2 million toward cleanup operations, but the State expects the entire bill will total more than \$200 million.) The Post also found that California officials are investigating what appear to be traces of pesticide residues migrating into well water from its Lathrop site. And the State of New York is considering a suit against Hooker for aiding in the development of the Love Canal episode — the

cleanup of which will cost taxpayers at least \$20 million; Hooker admitted recognizing as long as 20 years ago that the site posed a serious health hazard but never brought it to the attention of the State, the federal government or the affected residents.

There are signs that the states may be in a better position than EPA to crack down on questionable hazardous-waste disposal practices. Several critics within the Justice Department are concerned that RCRA's "imminent hazard" provision, under which EPA hopes to attack inactive sites, is so weakly worded that it may not stand up in the courts.

James W. Moorman, an assistant attorney general heading the Justice Department's land and natural resources division, announced last week that he has asked Attorney General Griffin Bell for a team of Federal Bureau of Investigation agents to be assigned to environmental problems. He said in hearings before Eckhardt's committee on May 16 that his agency was hobbled in its effective prosecution of serious hazardous-waste polluters by a chronic shortage of investigators trained to discover environmental crimes and by legal authority in many cases too weak to permit the subpoena of necessary chemical company records.

The problem of abandoned and inactive sites was not really anticipated in the writing of RCRA. Plugging the loophole they represent is made an even thornier problem because lawmakers charged with the task are without exception understaffed and underfunded. A January GAO report titled "Hazardous waste management programs will not be effective," documents the impact those shortages will probably have on implementation of RCRA and related legislation.

Neither state agencies nor EPA have completed the first steps needed to implement hazardous-waste requirements of RCRA, it says. Although individual states wishing to draft their own comparable legislation must make it at least as strong as RCRA, officials in all 10 of EPA's regional offices told GAO that they could not provide the technical assistance to states needed to initiate programs. Eight regional offices said they would be unable to provide assistance to either industry or the public on what the forthcoming federal laws will require. And six regional offices said they would be unable to review disposal sites in their region to verify whether they are environmentally sound.

To say that hazardous-wastes management is a difficult problem is a pathetic understatement. EPA estimates the cost of cleaning the nation's complement of silently ticking chemical time bombs at \$45 billion, roughly about what it cost to put a man on the moon. Defusing the bombs will take a tremendous national commitment, but people like Moorman find it hard to imagine a more serious problem facing the country. □

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THE CANCER REFERENCE BOOK: Direct and Clear Answers to Everyone's Questions — Paul M. Levitt et al — Paddington, 1979, 271 p., illus., \$10. This book is a nontechnical account, in question-and-answer format, of cancer. Includes a description of the 21 most common kinds of cancer, and discusses proven methods of treatment. Widespread cancer and terminal care are covered, unproven methods are presented and the future of research and treatment is explored.

DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS — N. Irving Sax — Van Nos Reinhold, 5th ed., 1979, 1118 p., illus., \$54.50. Hazard-analysis information for nearly 15,000 common industrial materials. Includes description, formula, physical constants, toxicity, flammability, explosiveness, disaster potential and explanations of countermeasures to reverse or mitigate possible effects.

A GUIDEBOOK TO NUCLEAR REACTORS — Anthony V. Nero, Jr. — U of Cal Pr, 1979, 289 p., illus., \$25, paper, \$9.95. Provides an introduction to nuclear power plants, describes types of reactors that are commercially available — their basic systems, safety design and operational characteristics — discusses questions that are basic to future development of nuclear power and describes advanced reactors.

HUMAN SEXUALITY — Herant A. Katchadourian, Donald T. Lunde and Robert J. Trotter — HR&W, brief ed., 1979, 343 p., illus., paper, \$9.95. Biological, psychological and social aspects of human sexuality are dealt with thoroughly and presented in the light of the most recent research findings in this briefer version of *Fundamentals of Human Sexuality*.

MASTERING YOUR MIGRAINE — Peter Evans, foreword by Paul Turner and Derek R. Mullis. — Dutton, 1979, 112 p., \$8.95, paper, \$3.95. Surveys the spectrum of present knowledge of this malady that affects peoples worldwide with the exception of those in tribal Africa and discusses current treatment in nontechnical language.

NATURE IS YOUR GUIDE: How to Find Your Way on Land and Sea — Harold Gatty — Penguin, 1979, 271 p., illus., paper, \$3.95. Shows how early explorers and primitive peoples found their way on long journeys by observing nature. Tells how you, too, can use nature through knowledge and observation of such things as birds, other animal life, weather, vegetation, snow field patterns and the position of the sun, moon and stars.

SCOLIOSIS AND OTHER SPINAL DEFORMITIES — John H. Moe et al — Saunders, 1978, 691 p., illus., \$37.50. A medical text covering the history, classification and treatment of spinal deformities (SN: 5/5/79, p. 298).