

EPA Sets Rules on Hazardous Wastes

For at least the past 8 months, toxic chemicals have been spilling out of an abandoned mine shaft into the Susquehanna River near Pittston, Pennsylvania, at the rate of several hundred gallons a day. Dichlorobenzene, cyanide, toluene, xylene, and various hydrocarbons and oily wastes are floating downstream, contaminating drinking water supplies of the towns along the way. These chemicals were injected into the mines by a midnight dumper, who officials currently believe to be a waste disposal firm from a town near Pittston. As well as they can determine, the creators of that waste—manufacturers primarily in New Jersey and New York—had no idea the waste was headed for the mines.

The Environmental Protection Agency (EPA), which is charged with the regulation of hazardous waste, has con-

The cost of the resultant paperwork is expected to be between \$16 and \$24 million annually, excluding the one-time \$7 million cost of notifying EPA. Agency officials say this is a paltry sum, relative to the chemical industry's gross annual sales of \$146 billion. Indeed, a spokesman for the Chemical Manufacturer's Association says it generally welcomes the new rules, claiming that the industry as a whole will gain a better image if midnight dumpers are put out of business.

Only 60 percent of hazardous wastes are generated by chemical firms, however, with the remainder coming from the machinery, metalworking, and paper industries and, in small quantities, from scientific research labs. Each of these will share the cost of implementing the new rules, as well as more rules yet to come. (EPA will designate some specific hazardous wastes by April and establish waste treatment, storage, and disposal standards by October. The total cost of implementing these regulations has been estimated at about \$1 billion annually.) David Lyons, the vice president and comptroller of Rockefeller University in New York, says that each of the 60 labs on his campus can easily comply with the notification and paperwork rules: "We could live with this. We have a single contractor who collects the waste every 2 weeks and takes it to a reprocessing plant, which costs us \$19,000 a year." What worries him is how much the cost will go up after all the regulations have been implemented.

Costle does not shrink from claims that forthcoming regulations on treatment and disposal will raise the cost of handling chemicals. "We have to get new [disposal sites], and we have to upgrade existing sites. The only way to do that is if we close off the cheap options." EPA anticipates that several hundred new disposal sites are needed. Costle adds that "it turns out the cheap options are not that cheap." The cost of repairing damage done by midnight dumpers or rehabilitating abandoned sites is frequently more costly, he says.

Neither the states nor the federal government can afford the repair cost, estimated at about \$44 billion. And numerous owners of substandard waste sites have threatened to walk away from their property if the new regulations cost too much. So the EPA is presently asking Congress to approve a cleanup "superfund," which will draw its revenues from fees on the chemical industry. Eventually, the industry will be required to contribute \$700 million a year to the fund, an amount EPA says will still not be enough. The fund will be used to clean up waste sites where a responsible party cannot be determined, although the Justice Department intends to sue for recovery of expenses from anyone deemed liable. And the legislation contains a strict liability provision—one in which the manufacturers of chemical wastes will be held responsible for cleanup even if they do not behave negligently. At present, two Senate subcommittees are about to report out a bill that the House is expected to act on by summertime.

"We do not view these regulations as the final solution," says Costle. "No single stroke of a pen can quickly change old habits of waste management that industry has become accustomed to. But [it is] an essential first step."

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Photo by J. Messina, EPA-Documerica

Hazardous wastes accumulating at Ville Platte, Louisiana.

cluded that such blissful ignorance is what gives midnight dumpers a free rein. On 26 February, the EPA published final rules requiring that generators, transporters, and disposers of hazardous wastes establish records detailing exactly where the wastes are going. Over 750,000 manufacturers and 52 million tons of waste annually will fall within this jurisdiction, although manufacturers will largely be able to decide for themselves if the wastes they produce constitute a hazard. "The system I am announcing today is designed to prevent the creation of future Love Canals," EPA Administrator Douglas Costle said in announcing the new regulations, which will take effect later this year. They require each manufacturer of hazardous wastes to identify themselves to EPA, and then to designate the disposal site for all wastes in a manifest to be signed by the transporter and returned by the owner of the site.* The agency will not take kindly to site designations of mine shafts, sewers and ditches, lakes and rivers, or open landfill. If the manifest is not returned in proper fashion, the manufacturer must then notify the EPA.

*The rules also require that EPA be notified 4 weeks before any wastes are to be shipped overseas (see *Science*, 29 February, p. 962).