OTA Urges Waste Reduction as Dump Sites Close

There are 544 land-based hazardous waste sites in the United States, a sharp decline from the 1538 that were operating a year ago. With dumps closing, local opposition to the siting of new facilities, and nagging insurance and liability questions, the country faces a waste disposal crisis within a decade. To avoid being poisoned in a sea of toxic trash, the Office of Technology Assessment (OTA) says industry and government must adopt an aggressive strategy for reducing the volume of hazardous waste that is generated.

The problem is detailed by OTA in a new report, *Serious Reduction of Hazardous Waste*, which the congressional office is touting in hopes that legislators will take up the matter next year. The central issue is how to shape an effective federal policy. OTA concludes that traditional regulatory enforcement approaches are probably ineffective because differences in process technology make regulating waste reduction on a plant-by-plant basis impossible. Representative Mike Synar (D–OK), chairman of the House Government Operations subcommittee on energy and environment, says that in the near term the government ought to focus on gathering better data on the volume and types of hazardous wastes being generated and should fund generic research in the area.

How to spur industry and government to rapidly expand their approach to waste management is a formidable problem. While the OTA report shows that waste reduction is "economically feasible," Synar says tax incentives or other government programs may be necessary to assure broad industrial participation. OTA in its report went so far as to suggest that companies be required to report on their waste reduction efforts in annual financial disclosures filed with the Securities and Exchange Commission.

Under the Resource Conservation and Recovery Act amendments of 1984, Congress declared a national policy of calling for meaningful reductions in, and, where possible, the elimination of hazardous wastes. However, there is little evidence that industry has embraced this charge, according to OTA. "This country does not come close to using the technology at its disposal for waste reduction," says Joel S. Hirschhorn, who directed the OTA study.

The Environmental Protection Agency's Office of Solid Waste and Emergency Response has responsibility for overseeing waste reduction efforts. To date, its research activities have focused on the reuse and recovery of materials. But despite the size of the challenge, the research effort is tiny, funded at just $250,000 in fiscal year 1986.

A June review by a subcommittee of the agency's Science Advisory Board has concluded that the research program as currently structured is inadequate. More emphasis should be put on reducing wastes produced as a part of manufacturing processes, even if that effort comes at the expense of other research programs, concludes the subcommittee. The internal review also calls for EPA to establish a network between experts in industry, academe, and government for the purpose of exchanging data on strategies, problems, and research programs. ■

MARK CRAWFORD

Case of Refusenik Geneticist Tied to Daniloff

The case of the Soviet-detained reporter Nicholas Daniloff has cast new light on the plight of Soviet geneticist David Goldfarb, who has been trying to get permission to emigrate for the past 7 years.

In April 1984, shortly after being promised an exit visa, the KGB entered Goldfarb's apartment, confiscated his collection of cell lines, and accused him of trying to take security material out of the country. Scientists around the world responded by putting a moratorium on the exchange of cell cultures with the Soviet Union, and ultimately the charges were withdrawn. No action has been taken on the visa.

Goldfarb's son Alex, who teaches at Columbia University, has now revealed that the KGB action was taken immediately after Goldfarb refused to participate in setting up Daniloff, a personal friend. The KGB called in Goldfarb shortly before the break-in and asked him to invite the reporter over for a farewell visit to his apartment, where they would be waiting to arrest him. Goldfarb later told Daniloff of the scheme, and the two continued to see each other.

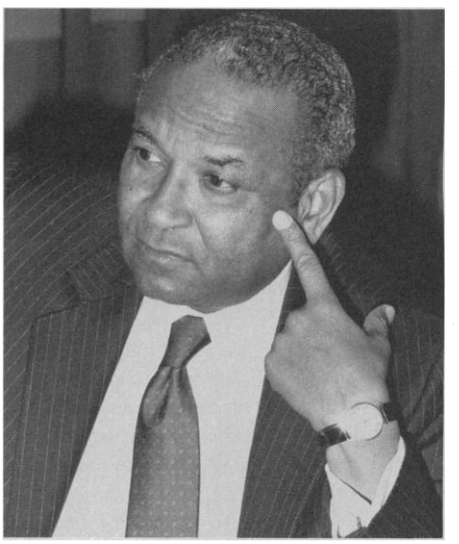
The Soviet Foreign Ministry has denied this version of events. Meanwhile, Goldfarb, a diabetic with one leg, was hospitalized 2 months ago. Alex Goldfarb says his father is in perilous condition, that one of his toes has been amputated, and that gangrene has set in, raising the possibility of another amputation. Two American doctors, Kenneth M. Prager of Columbia Presbyterian Hospital and Glenn W. Geelhoed of George Washington University, have applied for visas to go see Goldfarb but have been turned down. No members of the foreign press have been allowed to visit him.

Calling the situation "ominous," Alex Goldfarb says he believes that the Soviets want to silence Goldfarb by keeping him hospitalized indefinitely, and that the only way to prevent this is for scientists to send cables expressing concern to the Soviet Embassy and the Soviet Academy of Sciences. ■ CONSTANCE HOLDEN

Fight Looms Over Reelection of Unesco Chief

Paris

Western nations are trying to block any efforts by Amadou Mahtar M'Bow, the current director general of the United Nations Educational, Scientific, and Cultural Organization, to seek a third 6-year term of office when his current term expires at the end of next year.



Amadou Mahtar M'Bow. *Proposal would limit his tenure to two terms.*

The Australian ambassador to Unesco, former Prime Minister Gough Whitlam, proposed to the agency's executive committee in Paris in early September that it should support moves to limit the appointment of heads of all U.N. agencies to two terms.

Although the proposal was shelved before it could be discussed, members of the Australian delegation claim that it was not specifically aimed at M'Bow. However, they admit that, if such a ruling were eventually adopted at next year's General Council, M'Bow would be directly affected. And they point out that such a suggestion has already been approved in principle by the major Western contributors to the budget of

Unesco, from which the United States withdrew at the beginning of 1985.

M'Bow, who comes from Senegal, has said that he has not yet decided whether to stand for reelection, but some governments have already given him their support. In particular, a meeting at the end of July of the heads of states of African nations belonging to the Organization for African Unity endorsed a statement urging its member states to take "all the necessary steps" for the renewal of his mandate. ■

DAVID DICKSON

Senate Votes to Expand Anti-AIDS Drug Trials

The Senate has approved a sharp increase in funding for experimental drug trials for AIDS patients. An amendment to the fiscal year 1987 appropriations bill for the Department of Health and Human Services (HHS), offered by Senator Lowell Weicker (R–CT), would shift $47 million from an energy assistance program to the National Institute for Allergy and Infectious Diseases (NIAID).

If the amendment is approved by a conference committee and the appropriations bill is signed by President Reagan, the money will be used to fund additional treatment evaluation units and establish satellite centers so that the number of AIDS patients receiving experimental drug therapy can be increased.

The Senate's action came just as researchers and health officials were engaged in an intense debate over clinical trials of AZT (3′-azido-3′-deoxythymidine), a drug manufactured by the Burroughs Wellcome Company that appears to inhibit the ability of the AIDS virus to reproduce itself. At issue is whether the drug is sufficiently promising to end the clinical trial prematurely in order to make it more widely available. Such a move would, however, compromise the full value of the trial. A decision is expected soon.

AZT is one of several drugs that are being clinically tested by NIAID. In July, the institute awarded $100 million, to be paid out over a 5-year period, to 14 U.S. universities and hospitals that had been approved as treatment evaluation units for testing anti-AIDS drugs. At that time, five more treatment evaluation units were approved but not funded. If Weicker's amendment survives, about $7 million of the additional $47 million would be provided to these five treatment evaluation units. The rest of the money could be used to establish satellite centers where additional AIDS patients could be included in clinical trials and to expand experimental treatment programs in existing centers.

Because the Weicker amendment was proposed and passed so quickly, "the logistical details and the regulatory details of giving experimental drugs to an additional number of people still need to be worked out," according to James Hill of NIAID. Ultimately, NIAID would decide how the additional money should be spent.

Anthony Fauci, director of NIAID, foresees that the additional money would allow clinical trials to be expanded to include patients who do not fit into the currently available protocols for experimental drug therapy. "And, depending on the language of the bill, we may also be able to use some of the money for drug development," says Fauci. "That is, we could do some very basic science at the molecular biology level aimed at developing new drugs that interfere with various functions of the AIDS virus."

The source for the $47 million in Weicker's amendment is a proposed reduction in the funding for the Low-Income Home Energy Assistance Program. Weicker, who chairs the Senate appropriations subcomittee on labor, health and human services, and education, noted when he proposed the amendment that $2 billion was recently allocated to the states for energy assistance programs from a fine levied on Exxon for overcharging customers. Thus, the $47 million in the Weicker amendment is more than compensated for in fines paid by Exxon.

As of 8 September, there were 11,002 AIDS patients alive in the United States. About 1000 patients are currently participating in clinical trials to test the safety and efficacy of drugs that may either inhibit replication of the virus that causes AIDS or enhance immune responses to the virus. In addition to AZT, several other drugs, including HPA-23, foscarnet, ribavirin, dideoxycytidine, and interferon alpha will also be tested by the treatment evaluation units recently funded by NIAID.

Samuel Broder of the National Cancer Institute says that additional money "may allow us to expand the current drug trials and determine drug efficacy more quickly."

But the additional funding for drug intervention studies for AIDS is far from guaranteed. The HHS appropriations bill (HR 5233) is likely to contain provisions opposed by the Administration, and a presidential veto is a distinct possibility. And even if large increases in AIDS funding are approved, they could later be whittled away by cuts required to meet the Gramm-Rudman deficit reduction targets. ■

DEBORAH M. BARNES

Graham Nomination Moves at Last

After sitting becalmed in the executive approval process for 3 months, the nomination of William R. Graham to be President Reagan's science adviser and director of the Office of Science and Technology Policy (OSTP) is finally showing signs of movement. On 11 September, the Senate Commerce Committee held a routine hearing on the nomination, at which Graham was gently quizzed about his views on various science policy issues. The committee's approval is expected to be given in the last week of September, and the full Senate is likely to follow suit shortly thereafter.

Thus, Graham will take office almost 4 months after Reagan announced his intention to appoint him to the top science advisory post. Most of the delay resulted from the glacial pace with which Graham's papers moved through the White House bureaucracy and the Federal Bureau of Investigation, a process that took more than 2 months. Graham had already gone through this process less than a year ago when he was appointed to his current position as deputy administrator of the National Aeronautics and Space Administration.

The Commerce Committee hearing, which was attended only by Senator Slade Gorton (R–WA), with Senator Albert Gore, Jr. (D–TN), putting in a brief appearance, produced no surprises and few strong indications of the directions Graham is likely to take. In his verbal responses and written answers to questions posed by Senators Ernest Hollings (D–SC) and Donald Riegle (D–MI), Graham confined himself mostly to generalities.

The post of science adviser has been vacant since 1 January, when the previous incumbent, George A. (Jay) Keyworth left to launch a consulting firm. It was filled on an acting basis by Keyworth's former deputy, John P. McTague, who departed on 23 May for a top executive post at Ford Motor Company. Since early June, Richard Johnson, an assistant OSTP director, has filled in.

Meanwhile, OSTP's budget has been cut from $2.2 million in fiscal year 1986 to $1.3 million in 1987. Asked at the hearings whether that would crimp OSTP's operations, Graham said he has not yet turned his attention to the structure of the office, but suggested that it is appropriate for the White House bureaucracy to share in the effort to cut federal spending. Graham also said he would seek advice from outside OSTP and the federal government. ■

COLIN NORMAN