

tions the research has made to the care of patients, citing the management of metabolic imbalance in the brain in comatose patients, and the use of the drug mannitol to treat edema or swelling of the brain after trauma as examples.

Like NIH, the university has appointed a committee to review the laboratory. That committee, appointed a couple of months ago, includes three members of the medical school faculty and also persons not affiliated with the university, with the head of the Pennsylvania SPCA among them. Its report will be published, as will the final report from the NIH.

So far, no one has been prosecuted for the burglary. A move to make break-ins at research laboratories a federal crime has recently been made in Congress. Representative George Brown (D-Calif.) has introduced a bill (HR 2654) that would levy a fine and/or imprisonment on anyone who vandalizes a research laboratory that uses live experimental animals.

Representative Brown also has introduced a bill (HR 2653) to strengthen the existing Animal Welfare Act. A similar bill (S 1233) has been introduced in the

Senate by Senator Robert Dole (R-Kansas).

In another development in the arena of research with animals, NIH has recently issued a special edition of its guide to grants and contracts. Dated 25 June, it provides researchers and institutions with the newest versions of four documents concerning regulation of animal studies, including the revised Public Health Service Policy on Humane Care and Use of Laboratory Animals by Awardee Institutions.

There is little doubt that renewed efforts to assure proper treatment of research animals has been spurred by the unrelenting, occasionally illegal, actions of animal rights activists, many of whom do not believe it is appropriate to use animals at all. The movement has succeeded in gaining attention nationwide and NIH officials frankly admit that politically it cannot be ignored. It is also acknowledged that some abuses have taken place and that the more stringent guidelines are in order.

Scientists who deplore the tactics of certain animal rights groups that resort to illegal activity nonetheless admit that

there has been room for improvement in the care and treatment of animals in the laboratory. Many institutions have let animal facilities deteriorate because of decisions to spend scarce resources elsewhere and the staffs of animal facilities are not always ideal in terms of number or training. There is little doubt that the animal welfare movement has accomplished some of its goals by focusing attention on the matter. According to one person familiar with the NIH review of the Pennsylvania lab, researchers there now are doing things better since the break-in. According to Langfitt, improvements in animal care techniques have "evolved" since the earliest baboon studies which are shown on the tapes. The university has made changes in training and supervision, he says.

Under normal NIH procedures, the agency will consider lifting the suspension after the university responds to the charges. Its response will be reviewed by a panel of NIH officials and institute directors who have not been involved in the investigation and a final decision will be made by NIH director James B. Wyngaarden.—BARBARA J. CULLITON

## Low-Level Waste Deadline Looms

*Unless Congress passes an acceptable bill by the end of the year, the disposal system could be plunged into chaos*

The nation's system for disposing of low-level radioactive wastes could be plunged into chaos at the end of this year unless Congress takes action to end a political stalemate over access to existing dump sites. The governors of the three states that house the only commercial low-level waste sites in the United States—at Hanford, Washington; Barnwell, South Carolina; and Beatty, Nevada—have served notice that they will not accept everybody else's nuclear garbage indefinitely. State officials have threatened to close access to these facilities on 1 January 1986 unless a strict timetable is developed to open up sites elsewhere.

This was not supposed to happen. In December 1980 Congress passed legislation aimed at getting new sites opened within 5 years. Not a single new facility has been built, however, and none is in prospect at least until the end of the decade.

Congress was prodded into passing the 1980 legislation after Washington, South Carolina, and Nevada, irked at becoming

the nation's nuclear dumping grounds, provoked a crisis by closing or restricting access to their dump sites in 1979. In the ensuing chaos, some medical and research facilities were reported to have been within 2 weeks of shutting down because they had nowhere to store radioactive waste materials.

The best hope for avoiding a similar crisis next year is a bill, sponsored by Representative Morris K. Udall (D-Ariz.), which would establish a strict new timetable for getting alternative dump sites in place and impose penalties on states that do not take certain specific steps to deal with their low-level nuclear wastes. If the bill is approved by the end of the year, the existing dump sites will probably be kept open.

The bill (HR 1083) is supported in principle by the National Governors' Association and the governors of the three states with operating facilities. But some thorny political issues remain to be settled when the measure is voted on by the House Committee on Interior and Insu-

lar Affairs—possibly in the last week of July. Moreover, the House Committee on Energy and Commerce, to which the bill was also referred, has yet to take action and similar legislation has not even been introduced in the Senate.

This political brinksmanship is the result of a stalemate that has developed over implementation of the 1980 legislation. The measure attempted to encourage the establishment of regional dump sites by giving states the authority to form coalitions—called compacts—to build facilities to which the coalition members alone would have guaranteed access after 1 January 1986. In effect, only those states that form a compact with a facility in operation by 1986 would be assured a place to dispose of their nuclear trash.

Compacts quickly formed in the Northwest, the Southeast, and the Rocky Mountain states, where dump sites were already in operation. The legal agreements establishing these compacts would exclude wastes from nonmember

states after 1985, unless exemptions are negotiated. However, although several other states have since formed compacts, no sites have yet been selected and it will be several years before new facilities can be brought into operation. Moreover, some large waste generators, such as New York and Massachusetts, have not joined compacts and are still sorting out their options.

For at least the past 2 years it has been apparent that the 1986 deadline would not be met and the system has been moving inexorably toward a political showdown. Congress, which in the 1980 act handed responsibility for dealing with low-level wastes firmly to the states, is back at the center of the action.

Congress is deeply involved because it must approve the agreements establishing the compacts before they have the force of law. It is reluctant to approve the Northwest, Southeast, and Rocky Mountain compacts without some assurance that other regions would continue to have access to their sites after 1985. The agreements have consequently been bottled up in committee, sitting in legislative limbo along with three other compact agreements that have been negotiated more recently.

This stalemate has provoked a great deal of anger in the three states with dump sites. Richard Riley, governor of South Carolina, said in congressional testimony earlier this year that "South Carolina's health and safety concerns are the same as those in other states. Any argument that can be made to prevent the opening of a site can be made just as strongly in support of closing one." Indeed, bills have been introduced in the South Carolina legislature to close the Barnwell site at the end of the year if the Southeast compact is not approved.

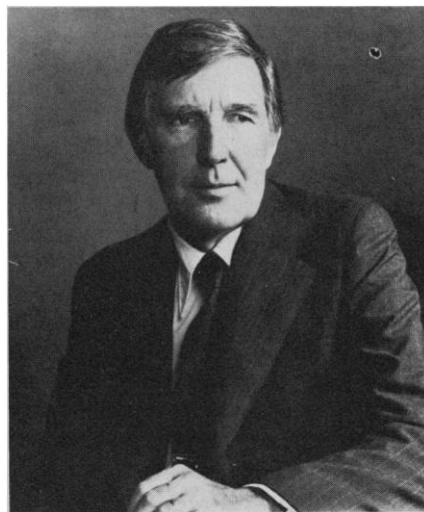
This seemed to present other states with a no-win prospect: If the agreements are approved, the compacts could legally exclude waste from nonmember states; if they are not approved, the sites may be shut completely. Clearly, something had to give.

Last fall, partly at Udall's urging, the states began to negotiate a framework that might end the stalemate and avert a crisis at the end of this year. The result was HR 1083, which Udall introduced on 7 February. Although the measure has been amended considerably since it was first proposed, the basic thrust remains the same.

In essence, the bill limits the amount of waste the three dump sites are required to receive over the next few years and it sets up specific milestones that other states must meet in bringing alter-

native disposal facilities into operation. Failure to meet the milestones could result in hefty financial penalties or denial of access to the three sites. The final deadline for building new facilities would be 1 January 1992, at which time compacts could refuse to accept wastes from nonmember states.

Although Udall said when he introduced the bill that none of the parties had endorsed it and he had reservations about it himself, it satisfied some of the concerns of both sides. States with operating facilities would have a firm assurance that they would not have to go on



**Morris K. Udall**

*Trying to forge a workable consensus.*

accepting increasing amounts of nuclear trash indefinitely and that alternative sites would be developed. States without operating facilities would have some breathing room to make arrangements for disposing of their wastes.

Equally important, by placing a cap on the amount of waste to be dumped at the existing sites, the bill would require waste generators to reduce the volume of their radioactive garbage. The bill was written to ensure that nuclear power plants, which produce the bulk of low-level wastes, would bear the burden of this volume reduction.

Although there is general agreement that the measure could break the logjam over approval of the regional compacts—the compact agreements would be amended to conform with the bill before they are approved by Congress—some difficult political issues remain to be resolved by the Interior Committee. These include a proposal that would make it a federal responsibility to dispose of some of the more highly radioactive types of low-level wastes, and settlement of a jurisdictional dispute over

whether low-level waste facilities are subject to regulation by the Environmental Protection Agency as toxic waste dumps, as well as by the Nuclear Regulatory Commission.

The most important outstanding issue, however, concerns the milestones that must be met by states without operating facilities and the penalties they would have to pay for missing them. Under a proposal put forward by the governors of South Carolina, Washington, and Nevada, states would have to join a compact and the compact agreement would have to be approved by the state legislature by 1 July 1986. Alternatively, they would have to have passed legislation stating their intent to develop a site of their own. A siting plan would have to be developed by 1 January 1988, and a license application would have to have been filed by 1990. After 31 December 1991, operating sites would not be required to accept wastes from outside their compact regions. Failure to meet any of these milestones would immediately cut off access by the offending state to an operating facility.

Although a 6-year phase-in period might seem adequate—especially given the fact that the states have already had nearly 5 years since passage of the 1980 bill to get their acts together—states without access to sites are nervous that a host of political and technical problems could push them past the milestones. Udall is therefore proposing a more flexible system under which states that fail to meet the deadlines would have a grace period of 6 months to 1 year before their access is cut off. During this grace period, they would have to pay a hefty surcharge for continuing to dump at existing sites. The final cutoff point would also be extended to 31 December 1992.

Udall said recently that he believes his approach will have broad support when it is brought before the Interior Committee. Washington, Nevada, and South Carolina are, however, reluctant to see any slippage in the timetable.

Optimists are hoping that if a consensus does form around Udall's bill and it can get out of the Interior Committee before Congress goes on its August recess, some political momentum can be gathered to push the measure through the rest of Congress by the end of the year.

If the bill is not approved, chaos is likely to result. If it is, low-level waste politics will be put on a new course. As Governor Riley recently put it, whatever happens, "there cannot be anything like business as usual after January 1, 1986."—COLIN NORMAN