

for Accreditation of Laboratory Animal Care, accept the principles of the new policy as "mandatory," and be in compliance with the Animal Welfare Act. Other institutions, which are not fully accredited, must submit annual reports to NIH, comply with all other preceding requirements, and are subject to site visits.

The proposals also lay out various animal welfare principles, such as avoiding "all unnecessary suffering and injury to animals" and that a scientist "must be prepared to terminate an experiment." Here again, the specific implementation of these general principles rests with individual scientists to negotiate with their ARC's, but there will be several new ways for keeping an eye on them and, if need be, pricking their consciences.

To some extent, Sweden has been testing a similar set of principles since 1979. Experiences there with a secondary review of research proposals involving animal use generally have been good, according to Karl Johan Öbrink of the Biomedical Center in Uppsala, who helped establish the system. There are six regional review boards, and each has equal numbers of scientists, technicians, and lay members. Although only advisory, the committees are mandated to review all animal research proposals. "The underlying belief is that rules are not enough; attitudes are important," Öbrink says. Proposals are reviewed by subcommittees and then discussed with the investigators, who often have found

the strongest criticisms of their use of animals coming from other scientists on the subcommittee.

The Swedish system faces two major problems, according to Öbrink. The first is a tendency to become less flexible and too institutionalized. The second, which is perhaps more worrisome, is that the committees cease to function effectively when they include militant antivivisectionists. The militants "have not done harm," he says, but they "make disturbances by discussing irrelevant things and so the work cannot go smoothly." The militants are being removed from the ethics review committees, he adds, but not surprisingly they are angry and are appealing their case to the government. Because Swedish law clearly states that research must continue and that animal experiments are "legal" despite the halt that radical antivivisectionist groups have sought, there is no assurance that their appeal will succeed. However, it does heighten Öbrink's worry that the issue will once again become highly polarized, leading to further losses in the new system's flexibility.

These same problems undoubtedly lie ahead for the proposed NIH system. Though aimed at attracting a consensus, the NIH system has gotten off to a somewhat shaky start. Representatives from the university community, for example, are concerned that implementing the proposals could become very costly, both in terms of time spent reviewing proposals and in improving physical facilities. However, there is general sup-

port for NIH taking the lead on this issue.

At another level, representatives from the animal welfare camp are saying that the NIH has presented its proposals in "too timorous" a light, noting that copies of the proposals "conveniently" were in short supply, hence precluding discussion of them during the meeting. Other more caustic critics, such as Constance Kagan who chairs the Animal Political Action Committee and Christine Stevens who is president of the Animal Welfare Institute, go farther.

Kagan says the whole NIH approach, with its emphasis on the role of individuals, is wrong. "Institutional accountability is really at issue," she says, and NIH's proposals do not correct the inherent conflict of interest of the ARC's. Kagan also accuses NIH of taking a "public relations approach to a moral issue." She is referring to the use of dramatic testimonials by surgical patients, who have benefitted from recently developed procedures, urging that animal research continue.

A similar appeal to the emotions—to achieve an opposite end in showing how lab animals sometimes suffer—has been used widely by activists in the animal welfare movement. Its use now by some researchers in this continuing argument, tied so closely to NIH's attempt to find a new consensus on the animal welfare issue, runs the risk of widening rather than narrowing the gap between the animal welfare and research communities.—JEFFREY L. FOX

Congress, DOE Battle Over British Plutonium

DOE refuses to give up the option of using plutonium from the civilian R & D program, including 4 tons imported from Britain, to make weapons

A battle between the Department of Energy and Representative Richard Ottinger (D-N.Y.) over the fate of about 8 tons of plutonium in DOE's civilian R & D program could embarrass the British government and cause strained relations between Britain and the United States. Ottinger, arguing that civilian and military nuclear programs should be kept separate, wants to stop DOE from using the plutonium to make weapons. DOE maintains, however, that the material may be needed for the Reagan Administration's weapons buildup.

Britain's stake in this dispute stems from the fact that about 4 tons of the

plutonium was transferred from Britain to the United States between 1964 and 1971 under a 1958 agreement "on the uses of atomic energy for mutual defense purposes." It was bartered for highly enriched uranium and tritium, which was used in Britain's defense program.

Although DOE officials have said they do not know the source of the plutonium, British statements indicate that it came from civilian magnox reactors. The agreement provides for use of the bartered plutonium for military purposes, but the British government has repeatedly sought assurances that it would be used only in civilian programs.

The first of these assurances came in April 1964, when Sir Alec Douglas-Home, who was then Britain's Prime Minister, said in a statement in the House of Commons that "I am informed by the United States Government that they have no intention of using the plutonium received from us for weapons purposes." A similar commitment was given in 1982, when Britain's Secretary of State for Energy, John Moore, told Parliament that U.S. authorities had confirmed that the British plutonium was all in the civilian R & D program. Finally, on 5 March, U.S. Energy Secretary Donald Hodel said in a letter to Ottinger that

"It has been and is the policy of this Department not to use this material for weapons."

In spite of these assurances, however, DOE is fighting a proposal by Ottinger that would make it illegal to transfer the British-origin plutonium to the military program. DOE officials have told Ottinger that they do not want to give up the option of using the plutonium for weapons production some time in the future, according to congressional sources. Moreover, DOE documents and recently declassified testimony indicate that, at least as recently as last year, the department was planning to use the material to produce nuclear weapons.

Ottinger originally proposed that every scrap of plutonium used or produced in civilian R & D facilities in the United States should be placed off limits for "any nuclear explosive purpose." Language to that effect is included in legislation now pending before the Committee on Energy and Commerce, which is expected to vote on it soon after Congress returns on 24 April from its Easter recess. Ottinger has recently offered to modify his proposal, however, to permit the transfer to military programs of virtually all the plutonium currently in the civilian R & D program, except for the British-origin material. DOE is opposing even this measure.

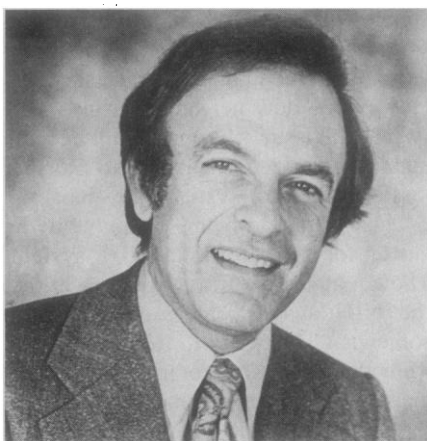
There are currently between 7 and 8 metric tons of plutonium in the civilian R & D program. About half of it is in the core of the Zero Power Production Reactor (ZPPR) in Idaho; 2.9 metric tons has been fabricated into fuel elements for the Fast Flux Test Facility (FFTF) at Hanford, Washington; and the balance is in a variety of smaller programs. The bulk of the British plutonium is believed to be in the ZPPR core and some is in the FFTF cores.

Virtually all this material contains relatively large amounts of the nonfissile isotope plutonium-240, and is thus undesirable for making weapons. But in testimony before the House Armed Services Committee in March last year, Herman Roser, the head of DOE's weapons programs, said DOE intended to convert it to weapons grade by blending some with so-called supergrade plutonium from the military program and running the rest through a laser separation plant in the late 1980's or early 1990's. His testimony, which was recently declassified, made clear that DOE was planning to convert all the plutonium from the civilian R & D program, including the British-origin material, into weapons.

Further evidence of DOE's intentions comes from an internal planning docu-

ment produced in 1978 and recently turned over to Ottinger. It indicates that DOE was planning to transfer 3.4 metric tons of plutonium from the ZPPR core—where most of the British plutonium is said to reside—to military programs in 1986.

Ottinger is concerned that transfer of any plutonium from the civilian R & D program into weapons production would undermine U.S. nonproliferation policy by blurring the distinction between civilian and military programs. Last year, Congress passed a bill making it illegal for DOE to use plutonium produced in civilian nuclear power plants for military purposes, and Ottinger's proposal is designed to extend the same prohibition to plutonium used in the civilian R & D program.



Richard Ottinger

Proposal would make it illegal for DOE to use British plutonium to make weapons.

DOE objected on the grounds that the U.S. plutonium currently in the R & D program was produced originally in defense reactors and there is a commitment to return it to the military. In other words, DOE claims it is technically military plutonium on loan to civilian programs. If Ottinger's proposal were passed by Congress, DOE warned, the department would be forced to reclaim three cores that have been fabricated for FFTF but which are so far unused and thus technically not covered by the proposal. This would effectively bring the FFTF program to a screeching halt.

Ottinger bowed to DOE's pressure and offered to modify his proposal by exempting all U.S. plutonium currently in the civilian R & D program that was originally produced in military reactors. This would permit the eventual transfer back to defense programs of U.S.-origin material but would outlaw any military use of the British-origin plutonium and would prohibit future shuffling back and forth between civilian and defense programs.

DOE has refused to accept the compromise, however. Although DOE said in a letter to Ottinger dated 5 March that it is not relying on the British-origin plutonium to meet its weapons needs, DOE officials told Ottinger's staff that they do not want to relinquish that option. This was repeated by Hodel in a meeting on 5 April, according to Ottinger's aides. Ottinger subsequently outlined DOE's objections in a letter to Hodel and asked him to confirm them in writing. Hodel had not responded by the time Congress recessed on 13 April.

Ottinger's proposal is supported by a broad array of groups and individuals including the Federation of American Scientists, the Environmental Policy Institute, the National Resources Defense Council, former CIA deputy director Herbert Scoville, and MIT defense expert George Rathjens. Their principal concern is that continued swapping of plutonium between military and civilian programs will seriously compromise efforts to prevent the spread of nuclear weapons. "How can we persuade other nations to forego the use in weapons of plutonium from their civilian research programs if we are doing so here?" sixteen citizens' groups said in a letter to Ottinger supporting his proposal.

They have also questioned the need for the plutonium in the weapons program. "The idea that we need this plutonium is just ridiculous," contends Rathjens. He points out that the Administration can recycle plutonium from 2000 warheads it has recently removed from Europe and that the decision to abandon the Clinch River Breeder Reactor will greatly lessen plutonium requirements in the late 1980's and early 1990's. The R & D plutonium would only be needed to build "every weapon that's on everybody's wish list," he says.

The British government would also, presumably, welcome passage of Ottinger's proposal. In recent weeks, critics of Britain's nuclear power program have raised numerous allegations about the possible military use of the country's civilian plutonium exports and British officials have reiterated assurances from U.S. authorities that there are no plans to use the material in weapons.

Yet, to the potential embarrassment of the British government, DOE officials have been telling Ottinger that they do not want to relinquish the option of using British-origin plutonium in the weapons program. If DOE does ever decide to use the material, that could put a serious dent in U.S.-British relations. Ottinger's proposal would at least preclude that possibility.—COLIN NORMAN