

down the use of either the police pistol or billy-club. . . . The National Guard had tear gas at Kent State and that did not prevent the wanton and unnecessary killing of four students."

Coates is well aware of the ACLU position, but believes their objections can be met in practice. "There is no question that the individual policeman is liable to use a nonlethal weapon as a punitive tool," Coates told *Science*. "But the ACLU people don't realize the opportunity for technology to moderate technology." Coates gives as an example the police station practice of weighing the cans of chemical spray at the end of each day and requiring the patrolman to account for the quantity used. In his 1967 monograph on nonlethal weapons, Coates states that technology cannot substitute for police training and that "the search for new improved weaponry probably will cre-

ate further problems of training and practice and increase the opportunity for misuse."

Coates and the ACLU represent the optimistic and pessimistic poles, respectively, of the academic view on nonlethal weapons. Less disinterested parties are the police departments and the manufacturers. Police departments have traditionally opposed nonlethal weapons, seeing them as the first step in a plot to deprive the police of their lethal weapons. The apprehension of police departments, combined with the objections of civil libertarians to the cruel and unusual effects of new weapons, account for the fact that so few have passed into common use. This has not stopped manufacturers from developing a constant stream of new devices, many of which are largely untested or the subject of exaggerated claims. "People like Sagalyn are honest-

ly searching for alternatives to force," says Temple of the ACLU, "but the forces that promulgate these weapons are not primarily interested in the benefit of our society." The manufacturers realize enormous profits by "recklessly advertising" in police journals and appealing to the "cowboy instinct" of the policeman to sell their wares, Temple says.

Although manufacturers seem to be the chief source of new devices, many of the ideas seem to originate with military departments such as the U.S. Army Land Warfare Laboratory and the Army Materiel Command. CS gas was originally developed for military use (the transfer to civilian use took some 30 years); instant cocoon, another fruit of military ingenuity, was first designed to secure prisoners prone to commit suicide.

A more favorable estimate of manu-

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## Biologics Division To Be Transferred from NIH to FDA

The Division of Biologics Standards, which has come under attack lately for botching its job of guaranteeing the potency of vaccines, is being dismantled. Health, Education, and Welfare Secretary Elliot Richardson declared last week that he will relieve the DBS of its responsibility for regulating vaccines, blood products, and human organs for transplants and give the job to the Food and Drug Administration. The DBS has been charged with approving millions of doses of subpotent influenza vaccine that were on the market between 1966 and 1968, with failure to remove 32 ineffective vaccines, and with internal incompetence and mismanagement (*Science*, 3 and 17 March).

The transfer of the DBS, which is part of the National Institutes of Health, has not been a cause for celebration either at NIH or at FDA. At present, it is not clear just how the switch will take place, in part because no one has defined what constitutes DBS regulatory activities.

According to an NIH spokesman, an inventory of the DBS is now under way, "We have to figure out just what everyone does. We decided that there is no way to approach the problem in the abstract, so we're going to count noses." When NIH officials have completed their analysis of the DBS, a task they

hope to complete within a week, they'll draw a line between what they consider regulatory work and pure research and present their plan to the FDA. Although it is unclear how many persons will have to be handed over, it seems that some scientists involved in control testing and other laboratory activities will have to be included in the package. "Charles Edwards [FDA commissioner] is accepting this reluctantly," one official noted, "and he certainly isn't going to accept this transfer if adequate resources don't go with it." (The entire DBS budget is \$9 million.)

Negotiation between the NIH and FDA over the details of the move are expected to begin this month, and the transfer may be completed by the beginning of the fiscal year in July.

Richardson announced his intention of breaking up the DBS during hearings before the Senate Government Operations subcommittee. Abraham Ribicoff (D-Conn.), chairman of the subcommittee, is among members of Congress who have proposed that consumer protection be transferred from DBS, FDA, and other HEW agencies to a new Consumer Protection Agency. Richardson said of that idea: "It is regressive, will deal the consumer a crushing setback, and will sell him a phony bill of goods by moving away from,

rather than toward, greater product safety. I cannot urge you strongly enough not to reorganize solely for the sake of reorganizing under the banner of consumerism." Most observers feel that his reorganization of the DBS and FDA with regard to biologics is intended to answer DBS's critics and put off any more sweeping changes.

Whether the transfer of the DBS regulatory function to FDA will really help matters any is moot. Ribicoff, for example, has as many gripes with the FDA as with the DBS and was quick to question the FDA's effectiveness as a consumer protector. Citing a government report attacking FDA's enforcement of safety and cleanliness standards in food preparation plants, he wondered how one can have any confidence in HEW regulatory agencies. Ribicoff was particularly unhappy about FDA standards that allow certain quantities of insect hairs and fragments in food; 150 insect hairs per 250 grams of certain foods, for example.

Other persons are no more certain than Ribicoff that the DBS-to-FDA transfer will be more than reorganization for reorganization's sake. Quipped one veteran agency observer on hearing of the plan, "It is like giving a blind man a blind dog."

—BARBARA J. CULLITON