# Approval Sought for Nerve Gas Pilot Plant

## *But national security officials weigh possible effect of the Pentagon proposal on chances for a ban on chemical warfare*

The Department of Defense (DOD) is seeking approval from the Administration and Congress to take a major step toward lifting the United States' self-imposed moratorium on upgrading its huge but obsolescent stockpile of lethal chemical warfare weapons. DOD wants to build a pilot plant for arming 155-millimeter artillery shells with binary nerve-gas projectiles. Controversy over binary weapons first arose in the mid-1970's when Congress blocked a Nixon Administration proposal to add them to the Army's tactical warfare arsenal.

The new DOD proposal is now in limbo pending further study. At a recent meeting at the White House of DOD, State Department, and other national security affairs officials, the proposal was questioned on two counts in particular. One of the questions raised is whether binary nerve-gas weapons are really needed as a deterrent to possible use of chemical warfare weapons by the Russians in an attack on Western Europe.

Another question has to do with whether a tentative U.S. commitment to produce such weapons would help or hurt the ongoing U.S.-Soviet negotiations—under way since mid-1977—to achieve a comprehensive ban on chemical warfare. Also, arms control specialists both within and outside the government are asking how this initiative would be received by other North Atlantic Treaty Organization countries, especially West Germany, the country where a major part of the new nerve gas weapons presumably would have to be stockpiled for a ready response to a Soviet chemical warfare attack.

West Germany has tolerated the presence within its borders of a small stockpile of chemical warfare weapons. But such weapons have been in disfavor in Germany since the public furor in the late 1960's over such incidents as the death of thousands of sheep downwind from nerve-gas field tests at the U.S. Army's Dugway Proving Grounds in Utah.

"The Germans have been consistently opposed to the use of chemical warfare weapons," Matthew Meselson, a professor of biochemistry at Harvard University and a former consultant to the U.S. Arms Control and Disarmament Agency, told *Science*. He said that West Germany has refused to allow any augmentation of stocks of chemical warfare weapons and has explicitly renounced training German troops in the use of such weapons. According to Meselson, the West German view is that civilians would be imperiled by the use of nerve gas or other chemical warfare weapons—yet, terrifying though these weapons are, placing more of them in the hands of NATO forces would not have the deterrent or coercive effect against Soviet aggression of tactical nuclear weapons.

"Unless the Germans change their policy, it's academic what the United States does" about its chemical warfare weapons stocks, Meselson said. Under the present untried strategy, such weapons would be rushed to the German front in case of need.

The Department of the Army and DOD hope that the fiscal 1981 budget which President Carter will submit to Congress in January will include $20 million for a pilot plant that might be the forerunner of a $150 million facility which would be built if the decision is later made to put the 155-mm binary nerve-gas shells and other binary nerve gas weapons into production. A binary weapon is one in which two nonlethal chemical agents are combined to form nerve gas during the flight of the projectile to its target. Although binary weapons have certain operational limitations, they offer several major advantages, namely relative safety in handling and transportation and, ultimately, ease of decommissioning (which otherwise is a hazardous and costly undertaking).

The present U.S. inventory of chemical warfare weapons is said to consist chiefly of 155-, 105-, and 8-inch Howitzer shells, together with more limited quantities of land mines and munitions deliverable by aircraft. No new chemical warfare weapon has been added to the U.S. arsenal since 1969, the year open-field testing of such weapons was stopped. Nothing has been done even to adapt existing types of weapons to new delivery systems, such as tactical support rockets and extended range artillery. All production facilities for chemical warfare weapons, such as the Rocky Mountain Arsenal near Denver, are in "layaway" and are said to be deteriorating badly. "To refurbish these facilities would cost as much as to build the new binary production facility," according to one chemical warfare specialist.

Meanwhile, according to DOD, the Soviet Union has developed "formidable offensive and defensive capabilities" in chemical warfare and is in this respect "better prepared than any other nation." Chemical warfare munitions in the Soviet inventory are said to include types deliverable by aircraft, artillery, multiple rocket launchers, free rockets over ground (FROG), tactical ballistic missiles, and possibly cruise missiles.

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The United States and the Soviet Union are both committed by the Geneva protocol of 1925 to "no first use" of chemical warfare weapons, which means, at least in theory, that each side maintains its stockpile in order to be able to retaliate against the other should this commitment be violated. Pentagon officials now contend that the United States might no longer be able to retaliate effectively in kind and that the President's escalatory options are being reduced by the continuing obsolescence and degradation of the U.S. stockpile. "The only option the President might have would be to initiate use of tactical nuclear weapons," says one official.

But some government arms-control officials regard the Pentagon view as simplistic and overdrawn. As one put it, "There is a real advantage to first use that can't be offset by retaliation in kind. We might use nukes anyway if we were losing badly enough." (The United States


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# Book Purged of Academy Slur

A pop diet book that says the Food and Nutrition Board of the National Academy of Sciences sets artificially high allowances for vitamins and minerals because of drug industry influence has been revised as the result of a $35 million libel suit filed by the Academy. Settlement was out of court, and the Academy recovered no monetary damages. In addition to deleting 11 paragraphs in future printings as part of the settlement, the author wrote an "apology" to Academy president Philip Handler, saying the book contained "certain factual inaccuracies . . . without conceding any legal liability or the precise extent of those inaccuracies."

The Food and Nutrition Board, through its committee on dietary allowances, sets dietary standards for the nation through the yearly publication of the Recommended Daily Allowances.

In the book, *Everything You Always Wanted to Know About Nutrition* (Simon and Schuster, 1978), author David Reuben alleged that the Board is "organized and owned by food manufacturers and vitamin sellers."

The Board has been criticized on more than one occasion for ignoring possible conflicts of interest that might predispose its members to pro-industry views. In 1972, it was revealed at a Senate hearing that five of seven members on an Academy panel that looked into the banning of monosodium glutamate had ties to industry. The Academy now requires prospective panel members to file a statement listing potential conflicts of interest. The statements are not available to the public.

After Reuben's book came to the attention of a member of the Food and Nutrition Board, Handler wrote three letters to Simon and Schuster, saying that the Academy was created by Congress in 1863 to conduct studies for the government without compensation. He asked for a retraction of the book's allegations. After the firm failed to respond, the Academy filed suit in the New York State Supreme Court. In the suit, filed in July, the Academy pointed out that Board members receive no compensation other than reimbursement for travel expenses incurred in attending meetings, and called "outrageously and patently false" allegations that the Board is "manipulated and controlled by the food industry" and is "engaged in fostering a deliberate deception of the public."

In addition to requiring the correction of future printings, the suit asked for $10 million in actual compensatory damages, $25 million in punitive damages, and recall of remaining books from retail outlets to make revisions. The suit also called for full-page ads to carry retractions for three consecutive days in the *New York Times*, and in newspapers with the largest circulation in Washington, New York, Boston, Chicago, Atlanta, Houston, Denver, Los Angeles, and San Francisco.

Except for deletion of contested paragraphs in future printings, the Academy received none of their demands in the settlement.

Filing suit in New York was one thing, getting it to the defendant another. To serve papers on Reuben, the Academy hired a private investigator who tracked him down to an apartment in San José, Costa Rica, where he researched and wrote the diet book. In a preface to the book, Reuben thanks the president of Costa Rica "for providing the atmosphere of peace and tranquility that made my work possible." A person in the New York office of Reuben's agent suggested that the Costa Rican atmosphere is also conducive to tax breaks.

The Academy will not disclose why settlement was out of court nor will it make available copies of the suit or of the paragraphs that were deleted. To date, 45,000 copies of the hard-cover book have been sold, and 25,000 remain on publisher or bookstore shelves. Unsold books from previous printings do not have to be revised. A new paperback edition (Avon, 1979), from which the contested paragraphs have been stricken, was recently released. The print run totaled 450,000 copies.

An Academy spokesman says matters contested in the suit did not involve the scientific merit of Reuben's book, and that settlement does not constitute approval of the remaining text.—WILLIAM J. BROAD

and NATO have not foresworn first use of tactical nuclear weapons if needed to stop a massive Soviet attack on Western Europe.)

In Meselson's view, the U.S. and NATO military posture and the effectiveness of the deterrent to Soviet aggression will not be much affected however the question as to production of binary nerve-gas weapons is decided. He thinks that that decision should turn on how American negotiators in the bilateral chemical warfare ban talks think the Soviets would react to a tentative U.S. initiative to produce such weapons.

Government arms-control specialists are not sure whether a "go decision" on the binary weapon pilot plant would make the Soviets see a ban on chemical warfare as possibly a last chance to avert another extension of the arms race—or whether it would lead them to conclude that the United States is not serious about the negotiations and to take it as a cue to modernize further their own chemical warfare capabilities.

Some modest progress toward a comprehensive ban on chemical warfare has been made since active negotiations began during the summer of 1977. Moreover, arms control officials believe that the "pace and tone" of the negotiations have improved since early August when the U.S. and Soviet representatives to the Committee on Disarmament issued a joint report on the status of the negotiations. Nonetheless, Pentagon officials point out that the most difficult parts of the negotiations still lie ahead. For instance, while some progress has been made on means of verification, the two parties are a long way from an agreement on this critically important question.

Actually, whatever the likely impact on the negotiations of a decision to build a binary weapon pilot plant, it would seem wise, as Meselson suggests, not to push ahead with production of new nerve gas weapons without assurance from the West German government that a substantial part of the modernized stockpile could be kept in Germany for a ready retaliatory response should the need arise. "It wouldn't be much of an advantage to have them in Utah," another arms-control specialist observes.

In any event, it appears doubtful that there will be a decision on the nerve gas pilot plant soon enough for this item to be included in the budget the President submits to Congress in January. Although the policy questions to which it gives rise are on the national security agenda for study, there is little sign that they will receive high priority.

—LUTHER J. CARTER


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