

# Nerve Bomb Ban Evaded By Pentagon

By David Perlman  
Science Correspondent

An Army scientist admitted yesterday that the Defense Department is using a "political fiction" to develop new nerve gas bombs that circumvents former President Nixon's long-standing order banning American manufacture of offensive chemical warfare agents.

The "fiction," he said, lies in the creation of "binary weapons" containing two near-harmless chemicals that can't be called true war gases until they are used on the battlefield.

Dr. David N. Kramer, a biochemist and chief of "detection research" at the Army's Edgewood Arsenal near Baltimore, defended the relatively new systems for delivering poison gases as urgently necessary to counter Soviet advances in chemical weapons.

A "binary"-weapon is a two-stage device in which two separate chemicals — each relatively non-toxic — are kept in separate chambers inside an airborne bomb or artillery missile.

Once in flight, a membrane between the two chambers ruptures; the chemicals mix as the flying weapon spins, and by the time the bomb lands the chemical

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mixture has become a devastating poison that can paralyze muscles, destroy nerves and kill its victims.

Kramer was an unscheduled speaker yesterday at a special symposium on binary weapons systems convened by the American Chemical Society at its national meeting here.

Most of the speakers at the session warned of new dangers if America pursues development of new chemical weapon systems, and they urged stronger international efforts for chemical disarmament.

But Kramer argued vigorously that America and its allies will swiftly become "very vulnerable" to Soviet chemical warfare superiority if this country refuses to produce its own chemical weapons for future battlefields.

He stressed that he was not speaking officially for the Defense Department, but in an interview with *The Chronicle* he explained candidly why he termed the two-stage bombs a "political fiction." Here was his reasoning:

In November of 1969, he recalled, President Nixon issued a widely hailed declaration pledging America never to use germ warfare and renouncing all but defensive development or use of chemical warfare agents. Nixon excepted only tear gas and chemical defoliants from his pledge.

But binary bombs don't technically fall under the Nixon prohibition, Kramer maintained, because the separate chemicals made for the weapons aren't toxic enough to be considered warfare agents by themselves. At least six different new types of nerve gas combinations have been developed, he said.

Kramer was asked: "If you make two relatively harmless chemicals separately, and put them into a can, and the chemicals mix inside the can while it's falling on an enemy, doesn't the can itself become a method for making an offensive chemical warfare weapon?"

"Of course," Kramer replied, "a binary bomb is just a political fiction to get around the Nixon doctrine that we won't make toxic weapons."

Kramer is a member of the American Chemical Society, and his principal job at Edgewood Arsenal is directing development of methods for detecting chemical warfare attacks.

An official Defense Department representative, Colonel D. W. Einsel Jr., chief of the Army's chemical-nuclear office, had been scheduled to speak on the panel, but a promotion and a change in orders prevented his appearance, so Kramer volunteered to join the symposium.

Kramer insisted the Russians are light-years ahead of America in employing advanced nerve gases, and that they supplied the Egyptians with a variety of chemical weapons during the 1973 war with Israel.

But the Egyptians never used the chemicals because Egypt's troops were too poorly trained and their commanders feared the gases might backfire, Kramer said.

"The Department of Defense," Kramer said, "knows full well that the Russian chemical warfare threat is formidable. It's a foolhardy position to ban chemical warfare agents in America. We need a good, balanced weapons program including all elements — nuclear and chemical as well as conventional."

Kramer's arguments were strongly opposed yesterday by several scientists, including Dr. Robert J. Rutman, professor of biochemistry at the University of Pennsylvania.

Rutman noted that no binary nerve gas bomb has ever been field-tested — at least not to public knowledge — but that the last known field test of any American nerve gas was the one that killed 6000 sheep at the Army's Dugway Proving Ground in Utah in 1968.

These gases, he noted, are all related to the organophosphorous compounds that are highly dangerous when used as pesticides on farms. They can cause mutations in unborn infants, Rutman said; they can cause cancer, and they may also cause birth defects.

While the gases may not be strongly active in causing cancer, Rutman said, the long-range effects of exposure have hardly been studied.

"Any use of nerve gases," Rutman argued, "implies a willingness to attack the present generation of combatants by attacking future generations with a cancer risk."

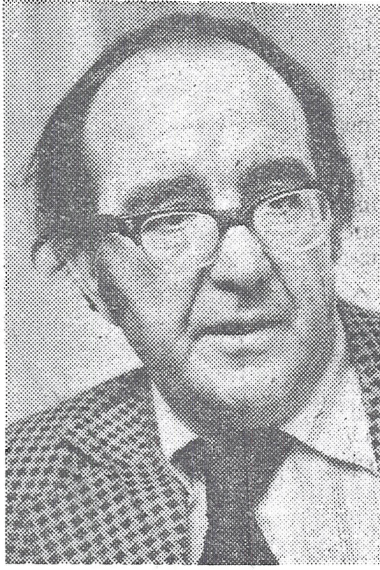
Kramer denied that nerve gases can cause cancer at all. Every one of the gases, he said, has been tested for cancer-causing effects in mice over periods of many months. Asked about long-term effects, he said the nerve poisons do not remain in the body long enough to pose any such danger.

Rutman noted that while the chemicals in the "binary bombs" create somewhat weaker poisons than the nerve gases now in America's stockpile, they have military advantages because they can be transported and stored more safely and thus made available more easily to troops in the field.

The Defense Department, he said, is now seeking more than \$1 billion to replace its stockpile of "obsolete" nerve gas projectiles with new binary weapons.

Congressional approval for the plan, Rutman argued, would pose immense global dangers: it would encourage smaller nations to start arming themselves with the technologically simple binary weapons. It would open a Pandora's box of new concepts in gas warfare. And it would weaken if not destroy current serious international negotiations toward total chemical disarmament, he said.

George R. Berdes, staff consultant to the House Subcommittee on International Security and Science told the panel that Congress has twice denied funds for the Army to buy the new binary nerve gas weapons in the past two years.



DR. DAVID KRAMER  
**New weapon defended**