

U.S. CHEMICAL WARFARE POLICY

HEARINGS
BEFORE THE
SUBCOMMITTEE ON NATIONAL SECURITY
POLICY AND SCIENTIFIC DEVELOPMENTS
OF THE
COMMITTEE ON FOREIGN AFFAIRS
HOUSE OF REPRESENTATIVES
NINETY-THIRD CONGRESS
SECOND SESSION

—
MAY 1, 2, 7, 9, AND 14, 1974
—

Printed for the use of the Committee on Foreign Affairs



U.S. GOVERNMENT PRINTING OFFICE

33-749

WASHINGTON : 1974

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402 - Price \$2.75

H381-39

COMMITTEE ON FOREIGN AFFAIRS

THOMAS E. MORGAN, Pennsylvania, *Chairman*

CLEMENT J. ZABLOCKI, Wisconsin	PETER H. B. FRELINGHUYSEN, New Jersey
WAYNE L. HAYS, Ohio	WILLIAM S. BROOMFIELD, Michigan
L. H. FOUNTAIN, North Carolina	H. R. GROSS, Iowa
DANTE B. FASCELL, Florida	EDWARD J. DERWINSKI, Illinois
CHARLES C. DIGGS, Jr., Michigan	VERNON W. THOMSON, Wisconsin
ROBERT N. C. NIX, Pennsylvania	PAUL FINDLEY, Illinois
DONALD M. FRASER, Minnesota	JOHN H. BUCHANAN, Jr., Alabama
BENJAMIN S. ROSENTHAL, New York	J. HERBERT BURKE, Florida
JOHN C. CULVER, Iowa	GUY VANDER JAGT, Michigan
LEE H. HAMILTON, Indiana	ROBERT H. STEELE, Connecticut
ABRAHAM KAZEN, Jr., Texas	PIERRE S. DU PONT, Delaware
LESTER L. WOLFF, New York	CHARLES W. WHALEN, Jr., Ohio
JONATHAN B. BINGHAM, New York	ROBERT B. (BOB) MATHIAS, California
GUS YATRON, Pennsylvania	EDWARD G. BIESTER, Jr., Pennsylvania
ROY A. TAYLOR, North Carolina	LARRY WINN, Jr., Kansas
JOHN W. DAVIS, Georgia	BENJAMIN A. GILMAN, New York
OGDEN R. REID, New York	TENNYSON GUYER, Ohio
MICHAEL HARRINGTON, Massachusetts	ROBERT J. LAGOMARSINO, California
LEO J. RYAN, California	
CHARLES WILSON, Texas	
DONALD W. RIEGLE, Jr., Michigan	

MARIAN A. CZARNECKI, *Chief of Staff*

SUBCOMMITTEE ON NATIONAL SECURITY POLICY AND SCIENTIFIC DEVELOPMENTS

To deal with all matters affecting our foreign relations that concern matters of national security and scientific developments affecting foreign policy, including the national space program, mutual defense, and the operation of our high strategy generally.

CLEMENT J. ZABLOCKI, Wisconsin, *Chairman*

WAYNE L. HAYS, Ohio	PIERRE S. DU PONT, Delaware
L. H. FOUNTAIN, North Carolina	PAUL FINDLEY, Illinois
DONALD M. FRASER, Minnesota	WILLIAM S. BROOMFIELD, Michigan
JONATHAN B. BINGHAM, New York	VERNON W. THOMSON, Wisconsin
JOHN W. DAVIS, Georgia	EDWARD G. BIESTER, Jr., Pennsylvania
CHARLES WILSON, Texas	

GEORGE R. BERDES, *Subcommittee Staff Consultant*

NANCY K. STOUT, *Staff Assistant*

CONTENTS

Introduction.....	Page v
-------------------	-----------

LIST OF WITNESSES

Wednesday, May 1, 1974:	
Hon. Gaylord Nelson, a U.S. Senator from the State of Wisconsin.....	1
Hon. Patricia Schroeder, a Representative in Congress from the State of Colorado.....	14
Hon. John Dellenback, a Representative in Congress from the State of Oregon.....	20
Thursday, May 2, 1974:	
Hon. Wayne Owens, a Representative in Congress from the State of Utah.....	39
Dr. Mathew Meselson, Harvard University Biological Laboratory, Harvard University.....	55
Dr. Julian Perry Robinson, professor, Science Policy Research Unit at the University of Sussex, England.....	58
Alan R. Pittaway, Arthur Young Co., Washington, D.C.....	69
Tuesday, May 7, 1974:	
Prof. Richard Baxter, professor of law, Harvard University and president of the American Society of International Law.....	105
Dr. Charles C. Price, past president, American Chemical Society.....	115
Thursday, May 9, 1974:	
Amos Jordan, Acting Assistant Secretary for International Security Affairs, Department of Defense.....	147
Tuesday, May 14, 1974:	
Hon. Fred Ikle, Director, Arms Control and Disarmament Agency.....	171
Leon Sloss, Deputy Director, Politico-Military Affairs, Department of State.....	173

MATERIAL SUBMITTED FOR THE RECORD

List of sponsors and cosponsors for resolutions on chemical warfare policy.....	1
Speech by Col. W. E. Dismore to the American Chemical Society on April 1, 1974, entitled "Chemical Weapons—A Necessary Deterrent".....	27
Letter, dated April 29, 1974, from Hon. Wayne Owens to the Secretary of Defense, regarding arms control for chemical weapons.....	45
Letters dated September 15, 1970, and September 17, 1973, from the American Chemical Society to Senator J. William Fulbright, Chairman, Foreign Relations Committee.....	115
DOD budget for defensive CW.....	192
Description of Japanese draft convention.....	198

STATEMENTS SUBMITTED FOR THE RECORD BY MEMBERS OF CONGRESS

Abzug, Hon. Bella S., of New York.....	209
Edwards, Hon. Don, of California.....	213
Harrington, Hon. Michael, J. of Massachusetts.....	214
Hicks, Hon. Floyd V., of Washington.....	217

APPENDI

	Page
DOD correspondence regarding the cost of Chemical Warfare programs . .	221
A glossary of terms	231
Study entitled, "A Vaccine Against Organophosphorus Poisoning," April 1972	242
National Academy of Sciences Report on "The Effects of Herbicides in South Vietnam," Summary and Conclusions	251
Paper entitled, "Binary Nerve-Gas Weapons," by Dr. J. P. Perry Robinson, dated February 1974, revised May 1974	294
"CBW and national security," study group paper of Members of Congress (Hon. John Dellenback et al.)	345
The Geneva Protocol of 1925	364
States parties to the Geneva Protocol of 1925	365
Reservations of parties to the Geneva Protocol of 1925	367
French text of the Geneva Protocol of 1925	371
United Nations Resolution 2603A (XXIV) of December 16, 1969	372
Report from the Pugwash Chemical Warfare Workshop, Helsinki, Finland, April 16-18, 1974	374

HD, or mustard, a blistering agent that can incapacitate or kill.

BZ, an incapacitating agent that causes disorientation and irrational behavior lasting up to several days.

CS, a riot control agent which irritates the eyes, nose, and throat for periods generally lasting no more than a few minutes after exposure is ended.

Agents orange, white, and blue, herbicides for reducing vegetation cover and for crop destruction.

Our national policy strongly reaffirmed by the present administration, renounces the first use in war of lethal and incapacitating agents such as VX, GB, mustard, and BZ. Such chemicals may be used only in retaliation against a chemical attack initiated by an enemy. In contrast, we have not renounced the first use of riot control agents or chemical herbicides.

According to current policy, the distinction between incapacitating agents and riot control agents is that the symptoms of incapacitating agents persist for hours or days even after exposure has ceased, whereas the symptoms of riot control agents are more transient. These distinctions in definition and policy become crucially important as we move toward ratification of the Geneva protocol of 1925, the international treaty prohibiting chemical and biological warfare.

UNITED STATES ONLY MAJOR POWER NOT RATIFYING PROTOCOL

The Geneva protocol prohibits the use in war of "asphyxiating, poisonous, or other gases, and of all analogous liquids, materials, or devices" and "bacteriological methods of warfare." Nearly 100 nations are parties to the protocol, including all the major powers of the world, except the United States. In August 1970, President Nixon sent the protocol to the Senate for its advice and consent to ratification as one of several widely praised steps announced the previous year. "To reinforce our continuing advocacy of international constraints on the use of these weapons."

In presenting the protocol, the administration asked for acceptance by the Senate of the understanding that U.S. ratification would not apply to riot control agents or herbicides. After considerable testimony and discussion in March of 1971, the Senate Foreign Relations Subcommittee expressed to the President its strong support for the protocol but asked the administration to reconsider its position on riot gas and herbicides. The ratification process has been delayed as the administration reconsiders its position on where to draw the line.

USE OF TEAR GAS, HERBICIDES IN VIETNAM

Before the Vietnam war, our policy for riot control agents, then called tear gases and for herbicides was, in effect, one of first use. We had never used gas of any kind in combat since its general use in World War I. At the League of Nations, we repeatedly indicated our willingness to join in a prohibition against all types of chemical weapons, including tear gas. Even when the use of CS in Vietnam was first reported in 1965, Secretary of State Dean Rusk stated that CS would be used "only in situations analogous to riot control and not in ordinary military operations." But as the war intensified, this policy was eroded.

until nearly all the CS used was disseminated in support of ordinary military operations.

Before we had phased out ~~herbicide use~~ and sharply curtailed the use of tear gas in Vietnam in 1970, U.S. diplomats at the United Nations and elsewhere advanced the view that the Geneva protocol did not apply to these particular chemical weapons. Although we had not ratified the protocol and accordingly were not strictly bound by its obligations, we were sensitive to charges of violating its spirit and argued that using riot gas and herbicides represented no such violation. It soon became evident, however, that our interpretation of the protocol was not shared by the majority of nations. In December 1969, the U.N. General Assembly, by a vote of 80 to 3 with 36 abstentions, passed a resolution holding that the protocol prohibits the use in war of all toxic chemicals against man, animals, and plants. Only two nations, Australia and Portugal, joined us in voting against the resolution. At the time, Australia was engaged in the Vietnam war and Portugal was reported to be using herbicides against insurgent forces in her African colonies. Never had we been so isolated on an important vote at the United Nations.

DOMESTIC USE

I should mention here that neither the U.N. resolution nor the protocol itself have anything whatever to do with the use of herbicides in farming or other domestic pursuits, or with the use of riot control agents by police. By its terms, the protocol applies only to war, and no nation and no recognized authority has ever maintained otherwise.

During the Vietnam war, while tear gas and herbicides were still in use, it was impossible for us to determine objectively where we should draw the line against chemical weapons. Our experimentation with the use of these agents temporarily closed options which otherwise would have been open to us. But now that our forces are no longer fighting in Vietnam, our perspective can shift to the broadest and most meaningful view of our interests.

DETERMINING WHERE TO "DRAW THE LINE"

As with many treaties, the Geneva protocol may be interpreted either broadly or narrowly. It is fundamentally important to our interest that, in finally ratifying the protocol, we determine where the most durable line against chemical warfare can be drawn. We should begin with an understanding that a durable line must be clearly definable, with minimum ambiguity as to what chemicals are prohibited.

A distinction between riot control agents and incapacitants is obviously less clear and less likely to survive technological innovation than a simple rule against antipersonnel chemicals of all kinds in war. The search for more effective riot control agents has already produced an agent that could cause difficulties in this regard. The new agent, CR, can be considerably more long lasting in its effects than CS, yet there is interest in it as a more effective successor for CS.

INCAPACITATING AGENTS VERSUS RIOT CONTROL AGENTS

The case points to the difficulties that will arise as technology erodes any distinction that may now be formulated between incapacitating agents, which we have pledged not to use, and riot control agents. The chemistry and toxicology of possible agents defy easy or unambiguous categorizations.

A second requirement for a durable standard is that it be generally accepted by the parties to the protocol. Our insistence on excluding riot gas and herbicides can only perpetuate disagreement and breed ambiguity. Although a few nations have supported our interpretation of the protocol, it is evident that far greater consensus would be achieved if we were to accept the broad interpretation embodied in the 1969 General Assembly resolution.

A third consideration favoring a broad interpretation is that, to an important extent, the use of any chemical weapon stimulates technical and institutional interest in other chemical weapons, creating incentives and institutional pressures to erode the line.

SECURITY BENEFIT OF CW RESTRAINTS

The choice we face is between the military benefit that accrues from the option to initiate the use of riot control agents and herbicides in possible future wars, and on the other hand, the long-term security benefit of further strengthening the legal, political, and practical restraints against the proliferation and use of chemical weapons.

From this perspective, the stakes are incommensurate. Undoubtedly there are special battlefield situations in which riot control agents and herbicides have a certain utility. But the evidence indicates that this utility is only marginal. Riot gas is useless against forces with masks. Herbicides, even in jungle warfare, have failed to have a major and objectively demonstrable value. These weapons would be of least utility in possible confrontations with our major adversaries.

On the other side of the scale, breakdown of constraints against lethal gas warfare could place in the hands of small or poor countries, and possibly even of terrorist groups, a formidable capability they do not now have to threaten ourselves and international security and tranquility in general.

If we can turn from preoccupation with the past, we will understand that our future interest lies in establishing a broad prohibition against all forms of chemical warfare. If the other nations of the world are willing to do so, we should be more than willing to break the impasse and lead the way.

Mr. ZABLOCKI. Thank you, Dr. Meselson.

Next Dr. Robinson, if you will proceed, sir.

STATEMENT OF DR. JULIAN PERRY ROBINSON, PROFESSOR, SCIENCE POLICY RESEARCH UNIT, UNIVERSITY OF SUSSEX, ENGLAND

Mr. ROBINSON. Thank you very much, Mr. Chairman.

I have prepared a written statement which discusses the interrelationships between nerve gas national security and international