

**HEARINGS EXHIBITS****EXHIBIT 1**

Attachment D

**MEMORANDUM FOR:** Director of Central Intelligence

**SUBJECT :** Contingency Plan for Stockpile of Biological Warfare Agents

1. On 25 November 1969, President Nixon ordered the Department of Defense to recommend plans for the disposal of existing stocks of bacteriological weapons. (On 14 February 1970, he included all toxin weapons.)

2. On 13 January 1970, the Special Operations Division of Fort Detrick, Maryland prepared a requested agent inventory, less toxins, and submitted it to the Scientific Director, Fort Detrick. This inventory was a required input to assist the Commanding Officer, Ft. Detrick to prepare a comprehensive plan for demilitarization on site of all biological agents/munitions which are stockpiled in support of operational plans.

3. Under an established agreement with the Department of the Army, the CIA has a limited quantity of biological agents and toxins stored and maintained by the SO Division at Ft. Detrick. This stockpile did not appear on the inventory list. The agents and toxins are:

**Agents:**

1. Bacillus anthracis (anthrax) - 100 grams
2. Pasteurella tularensis (tularemia) - 20 grams
3. Venezuelan Equine Encephalomyelitis virus (encephalitis) - 20 grams
4. Coccidioides immitis (valley fever) - 20 grams
3. Brucella suis (brucellosis) - 2 to 3 grams
6. Brucella melitensis (brucellosis) - 2 to 3 grams
7. Mycobacterium tuberculosis (tuberculosis) - 3 grams

REC'D FROM  
AUG 28 1975

CIA

8. *Salmonella typhimurium* (food poisoning) - 10 grams
9. *Salmonella typhimurium* (chlorine resistant) (food poisoning) - 3 grams
10. Variola Virus (smallpox) - 50 grams

Toxins:

1. Staphylococcal Enterotoxin (food poisoning) - 10 grams
2. *Clostridium botulinum* Type A (lethal food poisoning) - 5 grams
3. Paralytic Shellfish Poison - 5.193 grams
4. *Bungarus Candidis* Venom (Krait) (lethal snake venom) - 2 grams
5. *Microcystis aeruginosa* toxin (intestinal flu) - 25 mg
6. Toxiferine (paralytic effect) - 100 mg

This stockpile capability plus some research effort in delivery systems is funded at \$75,000 per annum.

4. In the event the decision is made by the Department of Defense to dispose of existing stocks of bacteriological weapons, it is possible that the CIA's stockpile, even though in R&D quantities and unlisted, will be destroyed.

5. If the Director wishes to continue this special capability, it is recommended that if the above DOD decision is made, the existing agency stockpile at SO Division, Ft. Detrick be transferred to the Huntingdon Research Center, Becton-Dickinson Company, Baltimore, Maryland. Arrangements have been made for this contingency and assurances have been given by the potential contractor to store and maintain the agency's stockpile at a cost no greater than \$75,000 per annum.

Thomas H. Karamessines  
Deputy Director for Plans

FROM

AUG 28 1975

CIA

SUBJECT: Contingency Plan for Stockpile of  
Biological Warfare Agents

TSD: wjc (16 February 1970)

Distribution:

Orig - Addressee

1 - C/TSD

1 - C/TSD/CB

**EXHIBIT 2**

INVENTORY OF LETHAL AND INCAPACITATING AGENTS  
 FOUND AT A CIA BUILDING (excerpted  
 from CIA Inventory)

<u>Material</u>	<u>Class</u>	<u>Quantity</u>	<u>Characteristics</u>	<u>Dose</u>
<u>LETHAL AGENTS:</u>				
Saxitoxin (shellfish toxin)	Lethal	11.405 gr.*	Highly lethal nerve toxin. Attacks cardio- vascular, respiratory, nervous, and muscle sys- tems. Death in seconds.	
Cobra venom	Lethal	8 mg.	Lethal nerve toxin; at- tacks nervous system.	7 mg.
French com- pound	Lethal	1.83 gr.	Highly lethal	less than .1 mg.
Aconitum Ferox ex- tract	Lethal	2 gr.	Lethal in overdose	20-40 ml.
Aconitine Nitrate	Lethal	.5 oz.	Lethal	
F-270	Lethal	1 cc		
Colchicine	Lethal	8 gr.	Lethal in overdose; death via muscular paralysis and respira- tory failure.	7 mg.
Strychnine	Lethal	5 gr.	Lethal; attacks neuro- muscular system.	

\*10.927 gr. of the total were transferred from Ft. Detrick to a CIA Building sometime in February 1970; the remainder (approximately .5 gr. had previously been delivered to the a CIA Building in the mid-1960's.

INVENTORY (Con't.)

<u>Material</u>	<u>Class</u>	<u>Quantity</u>	<u>Characteristics</u>	<u>Dose</u>
<u>LETHAL AGENTS:</u>				
Cyanide L-pills	Lethal	10 pills 8 pills 18 pills	Lethal. Blocks Oxygen Absorption (asphyxiation)	1 pill
FISH TOXIN	Lethal	3 cc.	Highly Toxic	less than 1 mg.
<u>BW HARDWARE:</u>				
30/06 micro-missile cart-ridges (containing dog tranquilizer)	Lethal Incap.	38	Incapacitate dogs for 4-6 hours. Lethal in man	
E-4640	Incap. Lethal	10 oval capsules	Dog incapacitant Lethal in man	100-300 mg (dog) (same doses lethal in man)
E-1 dart launcher with missiles (containing E-4640)	Incap. Lethal	10 (3mg/dart)	Dog incapacitant  Lethal in man	"
4 pistols				
-2 dart launchers		range		
-1 .22 cal: with dart firing attachment		range		
-1 micromissile		range		

\* INVENTORY (cont.)

<u>Material</u>	<u>Class</u>	<u>Quantity</u>	<u>Characteristics</u>	<u>Dose</u>
<u>INCAPACITANTS:</u>				
BZ	Incap. Lethal	10 lbs.	Incapacitant which can also be lethal Blocks nerve responses in central and autonomic nervous systems	
Carbachol	Incap.	1 kg.	Causes flushing, colic, diarrhea, salivation, nausea	.25 mg
EA 3167	Incap. Lethal	200 mg.	Similar to BZ onset of effects longer and effects last longer.	
EA 3442	Incap.	6 gr.	similar to BZ effects last shorter time	
SALMONELLA a) S. enteri- ditis	Incap. Lethal	50 mg	Intestinal inflammation and dysentery	micrograms
b) abortus	Incap. Lethal	48 mg.	Causes abortion in animals	
TACRIN	Incap.	123 gr.	Causes nausea and vomiting	
HALOTHANE	Incap.	19 bottles @ 125 cc each	Anesthetic with less odor than ether or chloroform	

INVENTORY (con't.)

<u>Material</u>	<u>Class</u>	<u>Quantity</u>	<u>Characteristics</u>	<u>Dose</u>
Mephenesin	Incap.	4 oz.	Muscle relaxant	
2-4 pyrolo	Incap.	10 gr.	Causes temporary amnesia	
Hyoscine	Incap.		Blocks autonomic nervous system reactions	
M-246	Incap.	15 gr.	Produces paralysis	
Desmethoxy Reserpine	Incap.	100 tablets 1 mg/tablet	Lowers blood pressure Overdose causes severe mental depression	.25-.5 mg
S-241	Incap.	1 gr.	BZ-like action	
Ovabin	Incap.	11 gr.	Cardiac stimulant even more potent than Digitoxin--faster onset, shorter duration IV only	.3-.5 mg
S-341	Incap.	1 gr.	BZ-like only more effective	

INVENTORY (con't.)

Material	Class	Quantity	Characteristics	Dose
<u>INCAPACITANTS:</u>				
BZ HCl	Incap. Lethal	20 gr.	Same as BZ--water soluble form	
COGENTIN	Incap.	26 tablets @ 2mg. each	wide range of debilitating, physiological effects	.5-.6 mg
ERGOTRATE MALCATE	Incap.	10 gr.	Oxytoxic. Used in Obstetrics to promote uterine contractions	
COLCHICINE	Incap. Lethal	8 gr.	Incapacitant. Overdoes leads to death via para- lysis and respiratory failure	1 mg. lethal dose-7 mg
DIGITOXIN	Incap.	5 gr.	Heart stimulant. Overdose can result in death	1.2-1.5 mg
CINCHONINE	Incap.	2 gr.	Antimalarial. Overdose leads to severe cardiac convulsions, nausea, and vomiting	
DEHYDROACETIC ACID	Incap.	1 gr.	Impairs kidney function and causes vomiting and convulsions	



INVENTORY (con't.)

<u>Material</u>	<u>Class</u>	<u>Quantity</u>	<u>Characteristics</u>	<u>Dose</u>
S 340	Incap.	1 gr.	BZ-like	
Phencyclidine HCL	Incap. Lethal	10 gr.	Causes disorienta- tion. High dosage leads to convulsions and death	
Tetrol	Incap.	50 mg	narcotic	
Neurokinin	Incap.	50 ml	Produces severe pain	

## EXHIBIT 3

18 February 1970

PARALYTIC SHELLFISH POISON -  
WORKING FURD INVESTIGATIONS

Safe B172C3, Room 202

U.S.P.H.S., Taft Center, Cincinnati, Ohio, product as follows:

GROUP 1 - LOTS 5, 6, &amp; 7 - See Notebook CD4660, page 149.

Vial 1	.247 gm	TOTALS added:
Vial 2	.165 gm	
Vial 3	.219 gm	2.250
Vial 4	.225 gm	1.556
Vial 5	.272 gm	1.033
Vial 6	.126 gm	.161
Vial 7	.259 gm	<u>5.009</u> gms
Vial 8	.248 gm	
Vial 9	.156 gm	
Vial 10	.252 gm	
TOTAL	2.250 gms	

GROUP 2 - LOT 10

Vial 1	.207 gm
Vial 2	.193 gm
Vial 3	.227 gm
Vial 4	.163 gm
Vial 5	.215 gm
Vial 6	.226 gm
Vial 7	.162 gm
Vial 8	.173 gm
TOTAL	1.556 gms

GROUP 3 - LOT 2

Vial 1	.149 gm
Vial 2	.146 gm
Vial 3	.209 gm
Vial 4	.220 gm
Vial 5	.229 gm
TOTAL	1.033 gms

GROUP 4 - LOT 9

Vial 1	.161 gm
--------	---------

FEB 19 1970

111

18 February 1970

PARALYTIC SHELLFISH POISON -  
WORKING FUND INVESTIGATIONS

Safe B172C3, Room 202

Northeast Shellfish Sanitation Center, U.S.P.H.S., Narragansett, R. I.,  
product as follows:

Batch VIIa	0.490 g
Batch VIII	0.830 g
Batch IX	0.554 g
Batch X & XI	1.236 g
Batch XV Supplement	0.252 g
Batch II	0.710 g
Batch V & VIIb	0.678 g
Batch VI	0.557 g
Batch XII	0.620 g
TOTAL	<u>5.927 g</u>

190 mg of liquid material furnished by Working Funds (probably Edgewood product). See Notebook CD4408, page 148.

TOXIFERINE DICHLORIDE

200.3 mg

## EXHIBIT 4

FOR IMMEDIATE RELEASE

NOVEMBER 25, 1959

Office of the White House Press Secretary

THE WHITE HOUSE

## STATEMENT BY THE PRESIDENT

Soon after taking office I directed a comprehensive study of our chemical and biological defense policies and programs. There had been no such review in over fifteen years. As a result, objectives and policies in this field were unclear and programs lacked definition and direction.

Under the auspices of the National Security Council, the Departments of State and Defense, the Arms Control and Disarmament Agency, the Office of Science and Technology, the Intelligence Community and other agencies worked closely together on this study for over six months. Those government efforts were aided by contributions from the scientific community through the President's Scientific Advisory Committee.

This study has now been completed and its findings carefully considered by the National Security Council. I am now reporting the decisions taken on the basis of this review.

Chemical Warfare Program

As to our chemical warfare program, the United States:

- NSA -- Reaffirms its oft-repeated renunciation of the first use of lethal chemical weapons.
- NSA -- Extends this renunciation to the first use of incapacitating chemicals.

DOD

Consistent with these decisions, the Administration will submit to the Senate, for its advice and consent to ratification, The Geneva Protocol of 1925 which prohibits the first use in war of "asphyxiating, poisonous or other Gases and of Bacteriological Methods of Warfare." The United States has long supported the principles and objectives of this Protocol. We take this step toward formal ratification to reinforce our continuing advocacy of international constraints on the use of these weapons.

Attachment 1

Biological Research Program

Biological weapons have massive, unpredictable and potentially uncontrollable consequences. They may produce global epidemics and impair the health of future generations. I have therefore decided that:

- The U.S. shall renounce the use of lethal biological agents and weapons, and all other methods of biological warfare.
- The U.S. will confine its biological research to defensive measures such as immunization and safety measures.
- The DOD has been asked to make recommendations as to the disposal of existing stocks of bacteriological weapons.

In the spirit of these decisions, the United States associates itself with the principles and objectives of the United Kingdom Draft Convention which would ban the use of Biological methods of warfare. We will seek, however, to clarify specific provisions of the draft to assure that necessary safeguards are included.

Neither our association with the Convention nor the limiting of our program to research will leave us vulnerable to surprise by an enemy who does not observe these rational restraints. Our intelligence community will continue to watch carefully the nature and extent of the biological programs of others.

These important decisions, which have been announced today, have been taken as an initiative toward peace. Mankind already carries in its own hands too many of the seeds of its own destruction. By the examples we set today, we hope to contribute to an atmosphere of peace and understanding between nations and among men.

RECEIVED FROM

SEP 3 1945

DOD

**EXHIBIT 5**

FOR RELEASE AT 6:00 P. M. EST

FEBRUARY 14, 1970

Office of the White House Press Secretary  
 (Key Biscayne, Florida)

---

THE WHITE HOUSE

On November 25, 1969, the President renounced all offensive preparations for and any use by the United States of biological or bacteriological agents and weapons in war. Since that decision, at the direction of the President, a comprehensive review of United States policy and military programs concerning toxins has been in progress.

Toxins are chemical substances, not living organisms, and are so regarded by the U.N. Secretary General and the World Health Organization. Although the effects of some toxins are commonly described as disease, they are not capable of reproducing themselves and are not transmissible from one person to another.

However, the production of toxins in any significant quantity would require facilities similar to those needed for the production of biological agents. If the United States continued to operate such facilities, it would be difficult for others to know whether they were being used to produce only toxins but not biological agents. Moreover, though toxins of the type useful for military purposes could conceivably be produced by chemical synthesis in the future, the end products would be the same and their effects would be indistinguishable from toxins produced by bacteriological or other biological processes. Accordingly, the President has decided that:

- The United States renounces offensive preparations for and the use of toxins as a method of warfare;
- The United States will confine its military programs for toxins, whether produced by bacteriological or any other biological method or by chemical synthesis, to research for defensive purposes only, such as to improve techniques of immunization and medical therapy.

The President has further directed the destruction of all existing toxin weapons and of all existing stocks of toxins which are not required for a research program for defensive purposes only.

The United States will have no need to operate any facilities capable of producing toxins either bacteriologically or biologically in large quantities and therefore also capable of producing biological agents.

These decisions have been taken with full confidence that they are in accord with the overall security requirements of the United States. These decisions also underline the United States support for the principles and objectives of the United Kingdom Draft Convention for the Prohibition of Biological Methods of Warfare.

The United States hopes that other nations will follow our example with respect to both biological and toxin weapons.

The renunciation of toxin weapons is another significant step, which we are willing to take unilaterally, to bring about arms control and to increase the prospects of peace.

**EXHIBIT 6**

450/33 100-67

13 October 1967

MEMORANDUM FOR : Chief, WSO

SUBJECT : INDIAGMI: Funding, Objectives, and Accomplishments

1. Funding: The basic annual expenditures for FY 1966 and FY 1967 have been maintained at \$90,000 with supplemental monies transferred to pay for any ad hoc investigations which necessitated expenditures beyond those anticipated. Supplemental monies were \$10,000 in FY 1966 and \$10,000 in FY 1967. Basic annual allotment for FY 1968 is \$75,000.

2. Objectives:

- a. To provide for a covert support base to meet clandestine operational requirements.
- b. To stockpile severely incapacitating and lethal materials for the specific use of TSD.
- c. To maintain in operational readiness special and unique items for the dissemination of biological and chemical materials.
- d. To provide for the required surveillance, testing, upgrading, and evaluation of materials and items in order to assure absence of defects and complete predictability of results to be expected under operational conditions.

3. Accomplishments and Goals: We have a relationship and a working agreement which provides a full range of information on technical developments, materials, and commodities suitable to meet our anti-terror requirements. R and D activity has been reduced dramatically and is currently held at an absolute basic support level. The program is oriented to maintenance of a state of operational readiness of selected materials and means for their delivery. The current program as funded provides a reservoir of research and development competency

FROM



in the biological and related sciences in a special security environment suited to the needs of the Clandestine Services. Because of extremely limited Army funds available to it, Fort Detrick, MD Division cannot expand support to preserve a capability such as that currently maintained for the Clandestine Services if we curtail our support any further. Of course, once dispersed, such competence is not easily reassembled.

4. In 1967 six (6) basic dry agents were developed. These agents were assayed for viability and toxicity and replaced with fresh material when required. None of these materials are available from any other source and can only be produced in the controlled environment and facility existing in Fort Detrick. In addition, nine (9) other materials and toxins are held in small amounts. The latter are unique and not available anywhere except in this facility. Upgrading for improved stability and resistance to antibiotics is underway.

5. Quick response items which do not adversely affect biological or chemical materials and which can be incorporated into concealments include minute fragile devices and special microbiococulators loaded with dry lethal and incapacitating materials. These systems are tested periodically to assure reliability and are routinely surveilled to ascertain their effectiveness and suitability of loading and coating processes. Among the many delivery systems held in readiness at present are silent electrical launchers, mechanical launchers, boards for loading into the launchers, ammunition concealment rounds which fit into carbines and rifles, and aerosol dissemination kits. Various configurations are being upgraded as part of a product improvement program.

6. A nondiscernible microbiococulator has been developed especially for use by the Clandestine Services and has been demonstrated successfully. The disseminating device is accurate at ranges up to 250 feet and has a very low sound level. A very small version (.015 inch diameter) carrying a .5  $\mu$ g load and capable of being used in a noise-free disseminator has been developed. Early tests have proven its feasibility and practicality for use at ranges up to 50 feet. Further improvements must be carried out before we will have a ready-to-go system.

7. Three methods and systems for carrying out a covert attack against crops and causing severe crop loss have been developed and evaluated under field conditions. This was accomplished in anticipation of a requirement which later developed but was subsequently scrubbed just prior to putting into action.

FILED FROM

SEP 4 1973

CIA

8. In anticipation of a future need for information and to establish a capability, a study on the vulnerability of subway systems to covert attack and development of a method to carry out such an attack was conducted. The suitability of the system was assessed and evaluated covertly, utilizing the New York City subway as the trial model. Results provided information on distribution and concentrations of organisms which are obtained. The data provided a means of assessing the threat of infection to subway passengers. The study provided a threat model and information on mode of dissemination and methods of delivery which could be used offensively.

9. Activity in FY 1968 is being restricted to maintenance of a biological stockpile and of an operational readiness of existing dissemination systems for chemical and biological materials of widely varying reactions and activities. When funds permit, adaptation and testing will be conducted of a new, highly effective disseminating system which has been demonstrated to be capable of introducing materials through tight clothing subcutaneously, intramuscularly, and silently without pain.

Chief

CSB/Biological Branch

Distribution:

- 1 - C/TSD
- 1 - Chrono

**EXHIBIT 7**

NATIONAL SECURITY COUNCIL  
WASHINGTON, D. C. 20506

November 25, 1969

National Security Decision Memorandum 35

**TO:** The Vice President  
The Secretary of State  
The Secretary of Defense  
The Director, Central Intelligence Agency  
The Director, Arms Control and Disarmament Agency  
The Director, Office of Emergency Preparedness  
The Director, Office of Science and Technology

**SUBJECT:** United States Policy on Chemical Warfare Program  
and Bacteriological/Biological Research Program

Following consideration by the National Security Council, the President has decided that:

1. The term Chemical and Biological Warfare (CBW) will no longer be used. The reference henceforth should be to the two categories separately -- The Chemical Warfare Program and The Biological Research Program.
2. With respect to Chemical Warfare:
  - a. The objective of the U. S. program will be to deter the use of chemical weapons by other nations and to provide a retaliatory capability if deterrence fails.
  - b. The renunciation of the first use of lethal chemical weapons is reaffirmed.
  - c. This renunciation is hereby applied to incapacitating chemical weapons as well.
  - d. This renunciation does not apply to the use of riot control agents or herbicides. A special NSDM on authorization for their use will be issued.

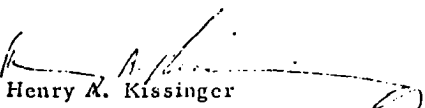
RECEIVED FROM

NOV 25 1969

NSC

- g. The Secretary of Defense, in cooperation with the Director of the Office of Science and Technology, shall continue to develop and improve controls and safety measures in all Chemical Warfare programs.
  - h. The Under Secretaries Committee shall conduct an annual review of United States Chemical Warfare programs and public information policy, and will make recommendations to the President.
3. With respect to Bacteriological/Biological programs:
- a. The United States will renounce the use of lethal methods of bacteriological/biological warfare.
  - b. The United States will similarly renounce the use of all other methods of bacteriological/biological warfare (for example, incapacitating agents).
  - c. The United States bacteriological/biological programs will be confined to research and development for defensive purposes (immunization, safety measures, et cetera). This does not preclude research into those offensive aspects of bacteriological/biological agents necessary to determine what defensive measures are required.
  - d. The Secretary of Defense will submit recommendations about the disposal of existing stocks of bacteriological/biological weapons.
  - e. The United States shall associate itself with the principles and objectives of the Draft Convention Prohibiting the Use of Biological Methods of Warfare presented by the United Kingdom at the Eighteen-Nation Disarmament Conference in Geneva, on 26 August 1969. Recommendation as to association with specific provisions of the Draft Convention should be prepared by the Secretary of State and the Director of the Arms Control and Disarmament Agency, in coordination with other interested agencies, for the President's consideration.

- f. The Secretary of Defense, in conjunction with the Director of the Office of Science and Technology, shall continue to develop controls and safety measures in all bacteriological/biological programs.
- g. The Under Secretaries Committee shall conduct an annual review of United States Bacteriological/Biological Research Programs and public information policy, and will make recommendations to the President.



Henry A. Kissinger

cc: Chairman, Joint Chiefs of Staff

**EXHIBIT 8**

NATIONAL SECURITY COUNCIL  
 WASHINGTON, D.C. 20506

February 20, 1970

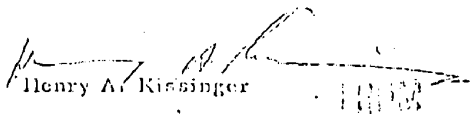
National Security Decision Memorandum 44

TO:           The Vice President  
               The Secretary of State  
               The Secretary of Defense  
               The Director, Central Intelligence Agency  
               The Director, Arms Control and Disarmament Agency  
               The Director, Office of Emergency Preparedness  
               The Director, Office of Science and Technology

SUBJECT:     United States Policy on Toxins

Following a review of United States military programs for toxins, the President has decided that:

1. The United States will renounce the production for operational purposes, stockpiling and use in retaliation of toxins produced either by bacteriological or biological processes or by chemical synthesis.
2. The United States military program for toxins will be confined to research and development for defensive purposes only.
3. The Secretary of Defense will submit recommendations concerning the disposal of existing stocks of toxin weapons and/or agents. These recommendations should accompany the recommendations pursuant to National Security Decision Memorandum 35 regarding the disposal of bacteriological/biological weapons.
4. The Under Secretaries Committee's annual review of United States chemical warfare programs and public information policy, as directed by National Security Decision Memorandum 35, will include review of United States military toxins programs.

  
 Henry A. Kissinger

cc: Chairman, Joint Chiefs of Staff

NSC

## EXHIBIT 9

## Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare

*Signed at Geneva June 17, 1925*

*Entered into force February 8, 1928*

The undersigned plenipotentiaries, in the name of their respective Governments:

Whereas the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, has been justly condemned by the general opinion of the civilized world;

Whereas the prohibition of such use has been declared in Treaties to which the majority of Powers of the world are Parties; and

To the end that this prohibition shall be universally accepted as a part of International Law, binding alike the conscience and the practice of nations;

Declare:

That the High Contracting Parties, so far as they are not already Parties to Treaties prohibiting such use, accept their prohibition, agree to extend this prohibition to the use of bacteriological methods of warfare and agree to be bound as between themselves according to the terms of this declaration.

The High Contracting Parties will exert every effort to induce other States to accede to the present Protocol. Such accession will be notified to the Government of the French Republic, and by the latter to all signatory and acceding Powers, and will take effect on the date of the notification by the Government of the French Republic.

The present Protocol, of which the French and English texts are both authentic, shall be ratified as soon as possible. It shall bear today's date.

The ratifications of the present Protocol shall be addressed to the Government of the French Republic, which will at once notify the deposit of such ratification to each of the signatory and acceding Powers.

The instruments of ratification of and accession to the present Protocol will remain deposited in the archives of the Government of the French Republic.

The present Protocol will come into force for each signatory Power as from the date of deposit of its ratification, and, from that moment, each Power will be bound as regards other powers which have already deposited their ratifications.

IN WITNESS WHEREOF the Plenipotentiaries have signed the present Protocol.

Done at Geneva in a single copy, the seventeenth day of June, One Thousand Nine Hundred and Twenty-Five.

## EXHIBIT 10

## Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction

*Signed at Washington, London, Moscow April 10, 1972*

The States Parties to this Convention,

Determined to act with a view to achieving effective progress towards general and complete disarmament, including the prohibition and elimination of all types of weapons of mass destruction, and convinced that the prohibition of the development, production and stockpiling of chemical and bacteriological (biological) weapons and their elimination, through effective measures, will facilitate the achievement of general and complete disarmament under strict and effective international control,

Recognizing the important significance of the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on June 17, 1925, and conscious also of the contribution which the said Protocol has already made, and continues to make, to mitigating the horrors of war,

Reaffirming their adherence to the principles and objectives of that Protocol and calling upon all States to comply strictly with them,

Recalling that the General Assembly of the United Nations has repeatedly condemned all actions contrary to the principles and objectives of the Geneva Protocol of June 17, 1925,

Desiring to contribute to the strengthening of confidence between peoples and the general improvement of the international atmosphere,

Desiring also to contribute to the realization of the purposes and principles of the Charter of the United Nations,

Convinced of the importance and urgency of eliminating from the arsenals of States, through effective measures, such dangerous weapons of mass destruction as those using chemical or bacteriological (biological) agents,

Recognizing that an agreement on the prohibition of bacteriological (biological) and toxin weapons represents a first possible step towards the achievement of agreement on effective measures also for the prohibition of the development, production and stockpiling of chemical weapons, and determined to continue negotiations to that end,

Determined, for the sake of all mankind, to exclude completely the possibility of bacteriological (biological) agents and toxins being used as weapons,

Convinced that such use would be repugnant to the conscience of mankind and that no effort should be spared to minimize this risk,

Have agreed as follows :



### Article I

Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain :

- (1) Microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes ;
- (2) Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

### Article II

Each State Party to this Convention undertakes to destroy, or to divert to peaceful purposes, as soon as possible but not later than nine months after the entry into force of the Convention, all agents, toxins, weapons, equipment and means of delivery specified in article I of the Convention, which are in its possession or under its jurisdiction or control. In implementing the provisions of this article all necessary safety precautions shall be observed to protect populations and the environment.

### Article III

Each State Party to this Convention undertakes not to transfer to any recipient whatsoever, directly or indirectly, and not in any way to assist, encourage, or induce any State, group of States or international organizations to manufacture or otherwise acquire any of the agents, toxins, weapons, equipment or means of delivery specified in article I of the Convention.

### Article IV

Each State Party to this Convention shall, in accordance with its constitutional processes, take any necessary measures to prohibit and prevent the development, production, stockpiling, acquisition or retention of the agents, toxins, weapons, equipment and means of delivery specified in article I of the Convention, within the territory of such State, under its jurisdiction or under its control anywhere.

### Article V

The States Parties to this Convention undertake to consult one another and to cooperate in solving any problems which may arise in relation to the objective of, or in the application of the provisions of, the Convention. Consultation and cooperation pursuant to this article may also be undertaken through appropriate international procedures within the framework of the United Nations and in accordance with its Charter.

### Article VI

(1) Any State Party to this Convention which finds that any other State Party is acting in breach of obligations deriving from the provisions of the Convention may lodge a complaint with the Security Council of the United Nations. Such a complaint should include all possible evidence confirming its validity, as well as a request for its consideration by the Security Council.

(2) Each State Party to this Convention undertakes to cooperate in carrying out any investigation which the Security Council may initiate, in accordance with the provisions of the Charter of the United Nations, on the basis of the com-

plaint received by the Council. The Security Council shall inform the States Parties to the Convention of the results of the investigation.

#### Article VII

Each State Party to this Convention undertakes to provide or support assistance, in accordance with the United Nations Charter, to any Party to the Convention which so requests, if the Security Council decides that such Party has been exposed to danger as a result of violation of the Convention.

#### Article VIII

Nothing in this Convention shall be interpreted as in any way limiting or detracting from the obligations assumed by any State under the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on June 17, 1925.

#### Article IX

Each State Party to this Convention affirms the recognized objective of effective prohibition of chemical weapons and, to this end, undertakes to continue negotiations in good faith with a view to reaching early agreement on effective measures for the prohibition of their development, production and stockpiling and for their destruction, and on appropriate measures concerning equipment and means of delivery specifically designed for the production or use of chemical agents for weapons purposes.

#### Article X

(1) The States Parties to this Convention undertake to facilitate, and have the right to participate in, the fullest possible exchange of equipment, materials and scientific and technological information for the use of bacteriological (biological) agents and toxins for peaceful purposes. Parties to the Convention in a position to do so shall also cooperate in contributing individually or together with other States or international organizations to the further development and application of scientific discoveries in the field of bacteriology (biology) for prevention of disease, or for other peaceful purposes.

(2) This Convention shall be implemented in a manner designed to avoid hampering the economic or technological development of States Parties to the Convention or international cooperation in the field of peaceful bacteriological (biological) activities, including the international exchange of bacteriological (biological) agents and toxins and equipment for the processing, use or production of bacteriological (biological) agents and toxins for peaceful purposes in accordance with the provisions of the Convention.

#### Article XI

Any State Party may propose amendments to this Convention. Amendments shall enter into force for each State Party accepting the amendments upon their acceptance by a majority of the States Parties to the Convention and thereafter for each remaining State Party on the date of acceptance by it.

#### Article XII

Five years after the entry into force of this Convention, or earlier if it is requested by a majority of Parties to the Convention by submitting a proposal

to this effect to the Depositary Governments, a conference of States Parties to the Convention shall be held at Geneva, Switzerland, to review the operation of the Convention, with a view to assuring that the purposes of the preamble and the provisions of the Convention, including the provisions concerning negotiations on chemical weapons, are being realized. Such review shall take into account any new scientific and technological developments relevant to the Convention.

#### Article XIII

(1) This Convention shall be of unlimited duration.

(2) Each State Party to this Convention shall in exercising its national sovereignty have the right to withdraw from the Convention if it decides that extraordinary events, related to the subject matter of the Convention, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other States Parties to the Convention and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

#### Article XIV

(1) This Convention shall be open to all States for signature. Any State which does not sign the Convention before its entry into force in accordance with paragraph (3) of this Article may accede to it at any time.

(2) This Convention shall be subject to ratification by Signatory States. Instruments of ratification and instruments of accession shall be deposited with the Governments of the United States of America, the United Kingdom of Great Britain and Northern Ireland and the Union of Soviet Socialist Republics, which are hereby designated the Depositary Governments.

(3) This Convention shall enter into force after the deposit of instruments of ratification by twenty-two Governments, including the Governments designated as Depositaries of the Convention.

(4) For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this Convention, it shall enter into force on the date of the deposit of their instruments of ratification or accession.

(5) The Depositary Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession and the date of the entry into force of this Convention, and of the receipt of other notices.

(6) This Convention shall be registered by the Depositary Governments pursuant to Article 102 of the Charter of the United Nations.

#### Article XV

This Convention, the English, Russian, French, Spanish and Chinese texts of which are equally authentic, shall be deposited in the archives of the Depositary Governments. Duly certified copies of the Convention shall be transmitted by the Depositary Governments to the Governments of the signatory and acceding States.

## EXHIBIT 11

<p>Dr. William T. Beaver            Department of Pharmacology            Cornell University Medical College            1300 York Avenue            New York, New York</p>	<p>Botulinum Toxin</p>
<p>Mr. William Beck            Northwest Shellfish Laboratory            Gig Harbor, Washington</p>	<p>Shellfish Poison</p>
<p>Dr. William H. Beers            The Rockefeller University            New York, New York 10021</p>	<p>Botulinum Toxin</p>
<p>Dr. Merlin S. Bergdoll            Food Research Institute            University of Wisconsin            Madison, Wisconsin 53706</p>	<p>Staph Ent B            Staph Ent A</p>
<p>Dr. Alan W. Bernheimer            New York University School of Medicine            Department of Microbiology            550 First Avenue            New York, New York</p>	<p>Staph Ent B            Botulinum Toxin</p>
<p>Dr. Martin E. Bernstein            Indiana University Medical Center            1100 West Michigan Street            Indianapolis, Indiana 46207</p>	<p>Shellfish Poison</p>
<p>Dr. John A. Bevan            Department of Pharmacology            School of Medicine            University of California            Los Angeles, California</p>	<p>Botulinum Toxin</p>
<p>Dr. B. Beys            Faculty of Medicine &amp; Pharmacology            School of Public Health            University of Brussels            Brussels 1, Belgium</p>	<p>Staph Ent B</p>

- Dr. Mordecai P. Blaustein  
Department of Physiology & Biophysics  
Washington University School of Medicine  
660 S. Euclid Avenue  
St. Louis, Missouri 63110
- Botulinum Toxin
- Dr. Peter Bonventure  
Radioisotope Laboratory  
Cincinnati General Hospital  
Cincinnati, Ohio
- Staph Ent B
- Lt. James C. Bond  
Department of Pharmacology  
Georgetown University Medical School  
Washington, D.C. 20007
- Botulinum Toxin
- Dr. Herbert L. Borison  
Department of Pharmacology  
Dartmouth Medical School  
Hanover, New Hampshire
- Staph Ent B  
Shellfish Poison
- Dr. Daniel Boroff  
Albert Einstein Institute  
York & Tabor Roads  
Philadelphia, Pennsylvania 19120  
*(A17) manuscript 4-5724*
- Botulinum Toxin
- Dr. Thomas Bratkowski  
Section of Neurobiology & Behavior  
Langmuir Laboratory  
Cornell University  
Ithaca, New York 14850
- Botulinum Toxin
- Dr. David K. Brooks  
Baylor University College of Medicine  
Texas Medical Center  
Houston, Texas 77025
- Shellfish Poison
- Dr. Clarence A. Broomfield  
Edgewood Arsenal, Maryland
- Botulinum Toxin
- Prof. S. D. Burton  
Institute of Marine Science  
University of Alaska  
College, Alaska
- Shellfish Poison

<p>Mr. Thomas Burton            Department of Health, Education and Welfare            Food &amp; Drug Administration            1521 W. Pico Boulevard            Los Angeles, California 90015</p>	<p>Shellfish Poison</p>
<p>Dr. Frank G. Carpenter            University of Alabama Medical Center            Medical College and School of Dentistry            Birmingham, Alabama 35233</p>	<p>Botulinum Toxin</p>
<p>Dr. C. Jelleff Carr            Chief, Scientific Analysis Branch            Life Sciences Division            Office of the Chief of Research and Development            Washington, D.C. 20310</p>	<p>Botulinum Toxin</p>
<p>Dr. Ezra Casman            Food &amp; Drug Administration            U.S. Public Health Service            Washington, D.C.</p>	<p>Staph Ent B</p>
<p>Dr. Stephen S. Chen            Department of Physiology            The University of Wisconsin            Madison, Wisconsin 53706</p>	<p>Botulinum Toxin</p>
<p>Dr. Michael Cherington            Division of Neurology            University of Colorado Medical Center            4200 East Ninth Avenue            Denver, Colorado 80220</p>	<p>Botulinum Toxin</p>
<p>Dr. William Chesbro            Department of Microbiology            University of New Hampshire            Durham, New Hampshire 03824</p>	<p>Staph Ent A</p>
<p>Dr. Scott V. Cobert            Bacteriology Department            Albany Medical College            Albany, New York</p>	<p>Botulinum Toxin</p>

- |  |                  |
|--|------------------|
| James E. Corrigan<br>35 Butler Street<br>Division of Natural Sciences<br>St. Francis College<br>Brooklyn, New York                                   | Shellfish Poison |
| Ethel Cosmos<br>Institute for Muscle Diseases, Inc.<br>Division of Cell Biology<br>New York, New York 10021  | Botulinum Toxin  |
| Dr. Frederick Coulston<br>Institute of Experimental Pathology<br>and Toxicology<br>Albany Medical College<br>Albany, New York 12208                  | Botulinum Toxin  |
| Dr. Scott Covert<br>Department of Microbiology<br>Albany Medical College<br>Albany, New York 12208   | Botulinum Toxin  |
| Dr. John T. Cronin<br>Professor of Chemistry<br>Division of Mathematics &<br>Physical Science<br>Southwestern State College<br>Weatherford, Oklahoma | Shellfish Poison |
| Dr. William J. Crowley, Jr.<br>Department of Neurology<br>University of Virginia School<br>of Medicine<br>Charlottesville, Virginia 22901            | Botulinum Toxin  |
| Dr. Don Das Gupta<br>Food Research Institute<br>University of Wisconsin<br>Madison, Wisconsin 53706  | Botulinum Toxin  |

<p>Dr. Gary Davis National Institute of Mental Health Division of Special Mental Health Research, IR Laboratory of Neuropharmacology Saint Elizabeths Hospital WAW Building Washington, D.C. 20032</p>	<p>Botulinum Toxin</p>
<p>Col. Irvin Davis USAF School of Aerospace Medicine Chief, Biosciences Division Brooks Air Force Base, Texas 78235</p>	<p>Staph Ent B</p>
<p>Dr. W. W. Dawson Department of Ophthalmology University of Florida Gainesville, Florida 32601</p>	<p>Botulinum Toxin</p>
<p>Dr. C. B. Denny Assistant Chief, Bacteriology National Conners Association, Washington Research Laboratory, 1133 20th Street, N.W. Washington, D.C.</p>	<p>Staph Ent B</p>
<p>Marjorie L. Dewey Chief Toxicologist Diablo Laboratories Berkeley Research Center Berkeley, California</p>	<p>Shellfish Poison</p>
<p>Dr. N. Dickie Department of National Health &amp; Welfare Food &amp; Drug Directorate Tunney's Pasture Ottawa, Ontario, Canada</p>	<p>Botulinum Toxin</p>
<p>Dr. V. R. Dowell National Communicable Disease Center Atlanta, Georgia</p>	<p>Botulinum Toxin</p>



Dr. Daniel B. Drachman  
 Department of Neurology  
 New England Center Hospital  
 Boston, Massachusetts

Botulinum Toxin

Dr. James L. Duncan  
 Department of Microbiology  
 Northwestern University  
 Chicago, Illinois 60611

Staph Ent B

Dr. Ralph V. Dykes  
 Scripps Institution of Oceanography  
 University of California, San Diego  
 P.O. Box 109  
 La Jolla, California 92037

Shellfish Poison

Dr. Gary Dykstra  
 Department of Health, Education & Welfare  
 Food & Drug Administration  
 1560 East Jefferson Avenue  
 Detroit, Michigan 48207

Shellfish Poison

Dr. Arthur Eberstein  
 New York University Medical Center  
 Institute of Physical Medicine &  
 Rehabilitation  
 400 East 34th Street  
 New York, New York

Shellfish Poison

Prof. Roger Eckert  
 Department of Zoology  
 Syracuse University  
 Syracuse, New York

Shellfish Poison

Dr. Seymour Ehrenpreis  
 Department of Pharmacology  
 Georgetown Medical School  
 Washington, D.C.

Botulinum Toxin

Dr. Richard Ehrlich  
 IIT Research Institute  
 10 West 35th Street  
 Chicago, Illinois

Staph Ent B

- Dr. C. Engel  
Central Institute for Nutrition  
and Food Research T.N.O.  
Utrechtseweg 48  
Zeist, The Netherlands
- Staph Ent B
- Dr. Martin H. Evans  
Institute of Animal Physiology  
Babraham  
Cambridge, England
- Shellfish Poison
- Mr. Douglas A. Ewald  
Department of Zoology  
University of California  
Berkeley, California 94720
- Botulinum Toxin
- Prof. Maurice B. Feinstein  
Down State Medical Center  
State University of New York  
Department of Pharmacology  
450 Clarkson Avenue  
Brooklyn, New York 11203
- Shellfish Poison
- Dr. William A Felsing, Jr.  
Chief, Field Operation Section  
Shellfish Sanitation Branch  
Department of Health, Education & Welfare  
Washington, D.C.
- Shellfish Poison
- Dr. John A. Findlay  
Department of Chemistry  
University of New Brunswick  
Fredericton, New Brunswick, Canada
- Shellfish Poison
- Dr. Robert B. Forney  
Department of Toxicology  
Indiana University Medical Center  
Indianapolis, Indiana
- Shellfish Poison
- Prof. Frederick A Fuhrman  
Fleischmann Laboratories of the  
Medical Sciences  
Stanford University School of Medicine  
Palo Alto, California 94304
- Shellfish Poison

Dr. Constantino Genigeorgis  
 Department of Epidemiology &  
 Preventive Medicine  
 University of California  
 School of Veterinary Medicine  
 Davis, California

Staph Ent B

Dr. Joseph F. Gennaro, Jr.  
 The J. Hillis Miller Health Center  
 University of Florida  
 Gainesville, Florida

Botulinum Toxin

Elmer George, Jr., Director  
 Laboratory Building  
 State Food Laboratory  
 Department of Agriculture & Markets  
 1220 Washington Avenue  
 Albany, New York 12226

Staph Ent B

Dr. Julia Gerwing  
 University of British Columbia  
 Vancouver, British Columbia, Canada

Botulinum Toxin

Dr. Richard J. Gilbert  
 Food Hygiene Laboratory  
 Central Public Health Laboratory  
 Colindale Avenue  
 London NW 9, England

Staph Ent A

Prof. A. Giovanardi  
 Istituto Di Igiene Della  
 Università Di Milano  
 University of Milan, Italy

Shellfish Poison

Dr. N. Grecz  
 IIT Research Institute  
 10 West 35th Street  
 Chicago, Illinois

Botulinum Toxin

A. E. Greenberg  
 Chief, Sanitation & Radiation Laboratory  
 2151 Berkeley Way  
 Berkeley, California

Shellfish Poison

- |   |                  |
|---|------------------|
| <p>Dr. Harry Grundfest<br/>           College of Physicians &amp; Surgeons<br/>           of Columbia University<br/>           Department of Neurology<br/>           Laboratory of Neuophysiology<br/>           New York, New York 10032</p> | Shellfish Poison |
| <p>Dr. S. Hagiwara<br/>           Scripps Institution of Oceanography<br/>           P. O. Box 109<br/>           La Jolla, California 92037</p>  | Shellfish Poison |
| <p>Dr. H. E. Hall<br/>           Robert A. Taft Sanitary Engineering Center<br/>           U. S. Public Health Service<br/>           4676 Columbia Parkway<br/>           Cincinnati, Ohio 45226</p>   | Staph Ent B      |
| <p>Dr. D. L. Hammernan<br/>           The Brooklyn Center<br/>           Long Island University<br/>           Brooklyn, New York 11201</p>   | Staph Ent B      |
| <p>Dr. William K. Harrell<br/>           Chief, Microbiological Reagents Unit<br/>           Communicable Disease Center<br/>           Atlanta, Georgia 30333</p>  | Staph Ent B      |
| <p>Dr. Koroku Hashimoto<br/>           Department of Pharmacology<br/>           Faculty of Medicine<br/>           University of Tohoku<br/>           Sendai, Japan</p>   | Shellfish Poison |
| <p>Dr. Ervin J. Hawrylewicz<br/>           IIT Research Institute<br/>           10 West 35th Street<br/>           Chicago, Illinois 60616</p>   | Botulinum Toxin  |
| <p>Dr. James L. Haynes<br/>           Litton Systems, Inc.<br/>           Applied Science Division<br/>           Minneapolis, Minnesota 55413</p>  | Botulinum Toxin  |

Dr. Richard Henderson  
 Department of Chemistry  
 Sterling Chemistry Laboratory  
 Yale University  
 225 Prospect Street  
 New Haven, Connecticut 06520

Shellfish Poison

Dr. Edward J. Herbst  
 Spalding Life Sciences Bldg.  
 Department of Biochemistry  
 University of New Hampshire  
 Durham, New Hampshire 03824

Shellfish Poison

Dr. T. Herskovic  
 Section of Gastroenterology  
 Yale University School of Medicine  
 New Haven, Connecticut 06510

Staph Ent B

Dr. John Heuser  
 Laboratory of Neuropathology &  
 Neuroanatomical Sciences  
 National Institute of Neurological  
 Diseases & Stroke  
 Bethesda, Maryland 20014

Botulinum Toxin

Dr. Bertil Hille  
 The Rockefeller Institute  
 New York, New York 10021

Shellfish Poison

Dr. Carl R. Honig  
 Department of Physiology  
 University of Rochester Medical Center  
 Rochester, New York

Botulinum Toxin

Prof. A. B. Hope  
 The Flinders University of South Australia  
 School of Biological Sciences  
 Bedford Park, South Australia 5042

Shellfish Poison

John Y. Humber  
 National Canners Association  
 Washington, D. C. 20036

Staph Ent A

- |   |   |
|---|---|
| <p>Dr. S. Irani<br/>           Department of Nutrition and Food Sciences<br/>           Massachusetts Institute of Technology<br/>           Cambridge, Massachusetts</p>   | <p>Staph Ent B</p>                            |
| <p>Dr. Bernard Jandorf<br/>           CRDL<br/>           Edgewood Arsenal, Maryland</p>  | <p>Shellfish Poison</p>                       |
| <p>Dr. James M. Jay<br/>           Department of Biology<br/>           Wayne State University<br/>           Detroit, Michigan 48202</p>   | <p>Staph Ent B<br/>           Staph Ent A</p> |
| <p>Dr. Donald J. Jenden<br/>           Department of Pharmacology<br/>           University of California Center for<br/>             the Health Services<br/>           Los Angeles, California 90024</p>  | <p>Botulinum Toxin</p>                        |
| <p>Dr. Wayne I. Jensen<br/>           U.S. Dept. of Interior Fish &amp; Wildlife<br/>             Service<br/>           P.O. Box 459<br/>           Bear River Research Station<br/>           Brigham City, Utah</p>  | <p>Botulinum Toxin</p>                        |
| <p>Dr. Francois Jobin<br/>           Laboratoire de recherches cliniques<br/>             et Service d'Hematologie<br/>           Hospital du Saint-Sacrement<br/>           Quebec, Canada</p>   | <p>Shellfish Poison</p>                       |
| <p>Dr. Howard M. Johnson<br/>           Milk &amp; Food Sanitation Research Branch<br/>           Division of Microbiology<br/>           Department of Health, Education &amp; Welfare<br/>           1090 Tusculum Avenue<br/>           Cincinnati, Ohio 45226</p> | <p>Staph Ent B</p>                            |
| <p>Mr. W. G. Jovett<br/>           TTCP, Sub-group E<br/>           Defence Standards Laboratories<br/>           P.O. Box 50<br/>           Ascot Vale, 3032<br/>           Victoria, Australia</p>  | <p>Shellfish Poison</p>                       |

Dr. C. Y. Kao Department of Pharmacology State University of New York Brooklyn, New York	Shellfish Poison
Dr. Toshikaru Kawabata Department of Food Control National Institute of Health 284 Kamiosaki-Chojamaru Shinagawa-Ku, Tokyo, Japan	Shellfish Poison
LCDR John C. Keeseey Naval Medical Research Institute National Naval Medical Center Bethesda, Maryland 20014	Shellfish Poison
Dr. T. H. Kent Walter Reed Institute Walter Reed Medical Center Washington, D.C.	Staph Ent B
Maurice E. King IIT Research Institute 10 West 35th Street Chicago, Illinois	Botulinum Toxin
Dr. C. P. Kraatz Department of Pharmacology The Jefferson Medical College of Philadelphia 1025 Walnut Street Philadelphia, Pennsylvania	Botulinum Toxin
Dr. Richard E. Kreig, Jr. USAF School of Aerospace Medicine Brooks Air Force Base, Texas 78235	Staph Ent B Botulinum Toxin
Dr. K. Krnjevic McGill University Department of Physiology Montreal, Quebec, Canada	Shellfish Poison

Dr. Francis A. Kulyna  
 Department of Physiology  
 Medical College of South Carolina  
 80 Barre Street  
 Charleston, South Carolina 29401

Botulinum Toxin

A. Lachance  
 Department of Industry & Commerce  
 Division of Fisheries  
 Parliament Building  
 Quebec City, Canada

Shellfish Poison

Prof. Harbans Lal  
 Department of Pharmacology  
 University of Kansas  
 School of Pharmacy  
 Lawrence, Kansas

Staph Ent B

Dr. Carl Lamanna  
 Deputy Chief & Scientific Advisor  
 Life Sciences Division  
 Office of the Chief of Research  
 and Development  
 Army Research Office  
 Washington, D.C. 20310

Botulinum Toxin

Dr. R. V. Lechowich  
 Department of Food Science  
 Michigan State University  
 East Lansing, Michigan 48823

Botulinum Toxin

Dr. Chen-Yuan Lee  
 National Taiwan University  
 Department of Pharmacology  
 College of Medicine  
 Taipei, Taiwan

Botulinum Toxin

Dr. J. S. Lee  
 Department of Food Science & Technology  
 Oregon State University  
 Corvallis, Oregon 97331

Shellfish Poison



- |   |   |
|---|---|
| <p>Dr. Keith H. Lewis<br/>           Director, Office of Foods &amp; Nutrition<br/>           Sciences<br/>           Food and Drug Administration<br/>           Room 6001 - FOB 8 Bldg.<br/>           200 C Street, S.W.<br/>           Washington, D.C. 20204</p> | <p>Shellfish Poison<br/>           Botulinum Toxin</p>  |
| <p>Dr. Martin Lipkin<br/>           Department of Medicine<br/>           Cornell University Medical College<br/>           First Avenue &amp; Twenty-Sixth Street<br/>           New York, New York 10016</p>  | <p>Botulinum Toxin</p>                                  |
| <p>Mr. Alfred R. Loeblich III<br/>           Scripps Institution of Oceanography<br/>           Department of Marine Biology<br/>           University of California<br/>           LaJolla, California</p>   | <p>Culture - <i>Gonyaulax</i><br/> <i>catenella</i></p> |
| <p>Dr. Gertrude D. Maengwyn-Davies<br/>           Department of Pharmacology<br/>           Georgetown University<br/>           Washington, D.C. 20007</p>   | <p>Botulinum Toxin</p>                                  |
| <p>Dr. Dean F. Martin<br/>           Department of Chemistry<br/>           University of South Florida<br/>           Tampa Campus<br/>           Tampa, Florida 33620</p>   | <p>Shellfish Poison</p>                                 |
| <p>Dr. Richard L. Masland<br/>           Department of Neurology<br/>           College of Physicians &amp; Surgeons of<br/>           Columbia University<br/>           New York, New York 10032</p>  | <p>Botulinum Toxin</p>                                  |
| <p>Dr. William O. McClure<br/>           Department of Chemistry &amp; Chemical Engineering<br/>           Biochemistry Division<br/>           University of Illinois<br/>           Urbana, Illinois 61801</p>  | <p>Botulinum Toxin</p>                                  |

Ted McDonald  
 Department of Entomology  
 University of California  
 Riverside, California 92502

Botulinum Toxin

Dr. Robert McIsaac  
 Department of Pharmacology  
 State University of New York at Buffalo  
 122 Capen Hall  
 Buffalo, New York

Botulinum Toxin

Prof. A. I. McMullen  
 State University of New York at Buffalo  
 Center for Theoretical Biology  
 4248 Ridge Lea Road  
 Amherst, New York 14226

Botulinum Toxin

Mr. John T. Meacham  
 Food & Drug Administration  
 Public Health Service  
 850 Third Avenue  
 Brooklyn, New York 11232

Shellfish Poison

Dr. Ernest A. Meyer  
 Department of Bacteriology  
 University of Oregon Medical School  
 3181 S.W. Sam Jackson Park Road  
 Portland, Oregon

Botulinum Toxin

Dr. Paul Middaugh  
 Bacteriology Department  
 College of Agriculture and  
 Biological Sciences  
 South Dakota State University  
 Brookings, South Dakota 57006

Staph Ent B

Dr. Robert Miller  
 Department of Zoology  
 The University,  
 Glasgow, England W.2

Shellfish Poison

Dr. Lloyd Moss  
 Stanford Research Institute  
 Menlo Park, California

Botulinum Toxin

- Dr. Toshio Narahashi  
Duke University Medical Center  
Department of Physiology &  
Pharmacology  
Durham, North Carolina
- Shellfish Poison
- Dr. K. V. Natarajan  
Douglas Marine Station  
Institute of Marine Science  
P.O. Box 349  
Douglas, Alaska 99824
- Shellfish Poison
- Prof. C. L. Oakley  
Department of Bacteriology  
University of Leeds  
School of Medicine  
Leeds 2, England
- Botulinum Toxin
- Dr. Torstein Oftebro  
The Veterinary College of Norway  
Institute for Food Hygiene  
Oslo 4, Norway
- Shellfish Poison
- Dr. A. C. Baird-Parker  
Unilever Research Laboratory  
Colworth House  
Sharnbrook, Bedford, England
- Staph Ent B
- Dr. Rodney L. Parsons  
Department of Physiology & Biophysics  
The University of Vermont  
College of Medicine  
Burlington, Vermont 05401
- Botulinum Toxin
- Prof. Anne L. Pates  
Department of Biological Sciences  
The Florida State University  
Tallahassee, Florida
- Botulinum Toxin
- Dr. Charles S. Petty  
Maryland Medical-Legal Foundation, Inc.  
700 Fleet Street  
Baltimore, Maryland
- Botulinum Toxin

- |  |                         |
|--|-------------------------|
| <p>Dr. John J. Powers<br/>Food Sciences Laboratory<br/>University of Georgia<br/>Athens, Georgia 30601</p>   | <p>Staph Ent B</p>      |
| <p>Dr. Venkatray G. Prabhu<br/>Department of Physiology &amp; Pharmacology<br/>Chicago College of Osteopathy<br/>1122 East 53rd Street<br/>Chicago, Illinois 60615</p> | <p>Botulinum Toxin</p>  |
| <p>Dr. Benjamin H. Pringle<br/>Northeast Shellfish Poison Laboratories<br/>Narragansett, Rhode Island</p>  | <p>Shellfish Poison</p> |
| <p>Dr. John Van Prohaska<br/>Department of Surgery<br/>950 East 59th Street<br/>Chicago, Illinois</p>  | <p>Staph Ent B</p>      |
| <p>Dr. M. Purko<br/>National Dairy Products Corp.<br/>Fundamental Research Laboratory<br/>Research &amp; Development Division<br/>Glenview, Illinois</p>               | <p>Shellfish Poison</p> |
| <p>Prof. Loyd Y. Quinn<br/>Department of Bacteriology<br/>Iowa State University of<br/>Science &amp; Technology<br/>Ames, Iowa 50010</p>                               | <p>Botulinum Toxin</p>  |
| <p>Dr. James J. Rahal<br/>171 Harrison Avenue<br/>Boston, Massachusetts 02111</p>  | <p>Staph Ent B</p>      |
| <p>Dr. K. R. Rao<br/>Department of Ophthalmology<br/>University Hospital<br/>The University of Iowa<br/>Iowa City, Iowa 52240</p>                                      | <p>Botulinum Toxin</p>  |
| <p>E. J. Ratajak<br/>Charles Pfizer Medical Research<br/>Laboratories<br/>Groton, Connecticut</p>  | <p>Staph Ent B</p>      |

Dr. Sammy M. Ray  
Marine Laboratory  
Texas A & M University  
Galveston, Texas 77550

Shellfish Poison

Dr. C. B. Read  
Sanitary Engineering Center  
U.S. Public Health Service  
4676 Columbia Parkway  
Cincinnati, Ohio

Staph Ent B

Gustavo del Real  
Escuela Nacional de Sanidad  
Ciudad Universitaria  
Madrid, Spain

Shellfish Poison

Dr. Horace Rees  
Dugway Proving Ground  
Dugway, Utah 84022

Botulinum Toxin  
Shellfish Poison

Dr. Edward Reich  
Rockefeller University  
66th Street & York Road  
New York, New York

Shellfish Poison

Dr. J. F. Reilly  
Division of Pharmacology  
Bureau of Scientific Research  
Food & Drug Administration  
Washington, D.C.

Shellfish Poison

Mr. Mack Richards  
Department of Sea & Shore Fisheries  
State of Maine  
Fisheries Research Station  
West Boothbay Harbor, Maine 04574

Shellfish Poison

Dr. Hans Riemann  
Department of Public Health  
School of Veterinary Medicine  
Agricultural Experiment Station  
University of California  
Davis, California

Botulinum Toxin

- Dr. Willis Riesen  
IIT Research Institute  
10 West 35th Street  
Chicago, Illinois  
Botulinum Toxin
- Dr. J. Murdoch Ritchie  
Professor of Pharmacology  
Albert Einstein College of Medicine  
New York, New York 10461  
Botulinum Toxin
- Dr. John W. Ritter  
18534 55th Avenue, N.E.  
Seattle, Washington 98155  
Botulinum Toxin
- Dr. Martin Rizack  
The Rockefeller University  
New York, New York 10021  
Shellfish Poison
- Dr. Joseph D. Robinson  
Department of Pharmacology  
State University of New York  
Upstate Medical Center  
766 Irving Avenue  
Syracuse, New York 13210  
Botulinum Toxin
- Dr. James R. Rooney  
Agricultural Experiment Station  
University of Kentucky  
Lexington, Kentucky 40506  
Botulinum Toxin
- Dr. Robert E. Rose  
Millipore Corporation  
Bedford, Massachusetts 01730  
Staph Ent B
- Dr. Findlay E. Russell  
University of Southern California  
Laboratory of Neurological Research  
Los Angeles County Hospital  
Box 323, 1200 North State Street  
Los Angeles, California 90033  
Shellfish Poison

Dr. Walter W. Suddler  
 Department of Public Health  
 University of California  
 Davis, California

Staph Ent B  
 Botulinum Toxin

Dr. Bernard P. Salafsky  
 Department of Pharmacology  
 College of Medicine  
 University of Illinois at the  
 Medical Center  
 Chicago, Illinois

Botulinum Toxin

Dr. J. P. Schmidt  
 Box 438  
 School of Aerospace Medicine  
 Brooks Air Force Base  
 San Antonio, Texas 78235

Staph Ent B

Maj. Daniel Sheahan  
 Department of Experimental Pathology  
 Walter Reed Army Institute of Research  
 Walter Reed Army Medical Center  
 Washington, D.C. 20012

Staph Ent B

Dr. Michael Sheff  
 Pennsylvania Hospital  
 Ayer Clinical Laboratory  
 Eighth & Spruce Streets  
 Philadelphia, Pennsylvania

Botulinum Toxin

Dr. G. M. Shull  
 Charles Pfizer & Company, Inc.  
 Eastern Point Road  
 Groton, Connecticut

Staph Ent B

Dr. Lance Simpson  
 New York State Psychiatric Institute  
 722 West 168th Street  
 New York, New York 10032

Botulinum Toxin

Dr. John M. Slack  
 Department of Microbiology  
 West Virginia University Medical Center  
 Morgantown, West Virginia

Botulinum Toxin

Dr. Alfred A. Smith  
 Department of Anesthesiology &  
 Pharmacology  
 New York Medical College  
 New York, New York 10029

Botulinum Toxin

Prof. Thomas Smyth, Jr.  
 Department of Entomology  
 The Pennsylvania State University  
 17 Frear Laboratory  
 University Park, Pennsylvania 16802

Botulinum Toxin

Dr. Arporna Sribhibhadh  
 University of Washington  
 College of Fisheries  
 Seattle, Washington

Shellfish Poison

Dr. Richard A. Steinhardt  
 Department of Zoology  
 University of California  
 Berkeley, California 94720

Shellfish Poison

Dr. A. H. Stock  
 Department of Microbiology  
 School of Medicine  
 University of Pittsburgh  
 Pittsburgh, Pennsylvania

Botulinum Toxin

Kazunobu Sugawara  
 Pharmaceutical Institute  
 Tohoku University School of Medicine  
 Kitayobancho  
 Sendai, Japan

Shellfish Poison

Dr. H. Sugiyama  
 Food Research Institute  
 University of Wisconsin  
 Madison, Wisconsin 53706

Staph Ent B  
 Botulinum Toxin

Dr. George B. Sumyk  
 IIT Research Institute  
 10 West 35th Street  
 Chicago, Illinois

Staph Ent B



- |   |                         |
|---|-------------------------|
| <p>Dr. Alan D. Tennant<br/>           Bacteriological Laboratories<br/>           Laboratory of Hygiene<br/>           Ottawa 3, Ontario, Canada</p>  | <p>Shellfish Poison</p> |
| <p>Dr. Frederick P. Thurberg<br/>           Department of Zoology<br/>           University of New Hampshire<br/>           Durham, New Hampshire 03824</p>   | <p>Shellfish Poison</p> |
| <p>Dr. John C. Tomlinson<br/>           Henry Ford Hospital<br/>           Section on Cardiovascular Research<br/>           2799 West Grand Boulevard<br/>           Detroit, Michigan 48202</p>   | <p>Botulinum Toxin</p>  |
| <p>Dr. B. T. Tozar<br/>           Microbiological Research Establishment<br/>           Porton Down, Salisbury<br/>           Wiltshire, England</p>  | <p>Shellfish Poison</p> |
| <p>Mr. Warren Tse<br/>           Department of Physiology<br/>           The University of Wisconsin<br/>           Madison, Wisconsin 53706</p>  | <p>Botulinum Toxin</p>  |
| <p>Mr. Claude Turgeon<br/>           Department of Industry &amp; Commerce<br/>           Parliament Buildings<br/>           Quebec City, Canada</p>   | <p>Shellfish Poison</p> |
| <p>Dr. Richard Tyler<br/>           Peter Bent Brigham Hospital<br/>           Neurology Division<br/>           Department of Medicine<br/>           Boston, Massachusetts</p>                    | <p>Botulinum Toxin</p>  |
| <p>Dr. Dennis W. Watson<br/>           Department of Microbiology<br/>           1060 Mayo Memorial Building<br/>           University of Minnesota<br/>           Minneapolis, Minnesota 55455</p> | <p>Staph Ent A</p>      |

- |   |   |
|---|---|
| <p>Dr. Homer W. Walker<br/>Iowa State University of Science &amp;<br/>Technology<br/>Department of Dairy &amp; Food Industry<br/>Ames, Iowa 50010</p> | <p>Botulinum Toxin</p>                                      |
| <p>Dr. Dean D. Wall<br/>Midwest Research Institute<br/>Kansas City, Missouri 64110</p>  | <p>Shellfish Poison</p>                                     |
| <p>Prof. E. D. Weinberg<br/>Department of Microbiology<br/>Indiana University<br/>Bloomington, Indiana 47401</p>                                      | <p>Staph Ent B</p>  |
| <p>Dr. Henry Wills<br/>Albany Medical College<br/>Albany, New York 12208</p>  | <p>Botulinum Toxin</p>                                      |
| <p>Dr. John F. Winn<br/>Chief, Biological Reagents Section<br/>Communicable Disease Center<br/>Atlanta, Georgia 30333</p>                             | <p>Staph Ent B</p>  |
| <p>Dr. Ben Wilson<br/>Vanderbilt University<br/>School of Medicine<br/>Department of Biochemistry<br/>Nashville, Tennessee 37203</p>                  | <p>Staph Ent B<br/>Botulinum Toxin<br/>Shellfish Poison</p> |
| <p>Dr. A. J. Wood<br/>Biochemistry &amp; Bacteriology Departments<br/>University of Victoria<br/>Victoria, British Columbia</p>                       | <p>Shellfish Poison</p>                                     |
| <p>Dr. Margy Woodburn<br/>Foods &amp; Nutrition Department<br/>Oregon State University<br/>School of Home Economics<br/>Corvallis, Oregon 97331</p>   | <p>Staph Ent B<br/>Staph Ent A</p>                          |
| <p>Dr. Robert D. Yates<br/>Department of Anatomy<br/>University of Texas Medical Branch<br/>Galveston, Texas 77550</p>                                | <p>Botulinum Toxin</p>                                      |

Dr. Sumner Zacks  
Ayer Clinical Laboratory  
Penn Hospital  
8th & Spruce Streets  
Philadelphia, Pennsylvania

Botulinum Toxin

**EXHIBIT 12**

SUMMARY REPORT

WORKING FUND INVESTIGATIONS (U)

JUNE 1968 - JUNE 1969

1 June 1969

SEARCHED \_\_\_\_\_  
 INDEXED \_\_\_\_\_  
 SERIALIZED \_\_\_\_\_  
 FILED \_\_\_\_\_

*[Handwritten signatures and initials]*

Classified \_\_\_\_\_  
 By \_\_\_\_\_  
 Date \_\_\_\_\_

Special Operations Division  
 COMMODITY DEVELOPMENT AND ENGINEERING LABORATORIES  
 Fort Detrick  
 Frederick, Maryland 21701

GROUP 3  
 Downgrading and/or  
 Exemption from automatic  
 downgrading and/or  
 declassification

[DELETED]

VI. (S) WATER SYSTEM-TEST

(C) The General Services Administration and Fort Detrick entered into a cooperative project to investigate the vulnerability of drinking water in federal buildings to covert biological attack.

(S) The nature of the test and a summary of results are presented here because of related interest to Working Fund Investigations. Extension of the study could produce refinement in test hardware and enhanced predictability of test results.

(U) After consultation with design engineers in Public Buildings Service, which is a part of GSA, the Food and Drug Administration Building in Washington, D. C., was selected for investigation. The engineers assured us that the drinking water system is typical of that installed in modern multistoried structures.

(U) The distribution of chilled drinking water in the FDA building covers six floors above ground, a basement and a subbasement. Located in the subbasement is a chilled water tank of about 100 gallons. The piping holds an estimated 60 gallons, bringing the system total to roughly 160 gallons. A pump operates continuously circulating chilled water from this tank to 55 drinking fountains on the eight levels in the building by a piping network that includes three risers and five return lines.

RECEIVED FROM

SEP 4 1975

CIA

(C) Two tests were planned and carried out in the FBI building. The first was a characterization or familiarization test. In this test, 303 milliliters of coliphage T-3 was introduced into the chilled water tank in the subbasement. The count was  $2.4 \times 10^{10}$  particles/ml, or a total of  $303 \times 2.4 \times 10^{10} = 7.3 \times 10^{12}$  particles. Thirteen and four-tenths grams of sodium thiosulfate in 50 ml of water were added to remove available chlorine that would have quickly killed the coliphage organisms. Samples of water were collected at several fountains at periodic intervals. Recoveries in samples collected the first hour were uniformly more than  $1 \times 10^6$  particles/ml. Recoveries in samples collected the second hour were greater than  $1 \times 10^5$  particles/ml. Tests for available chlorine became positive two hours after start of test and the coliphage recoveries quickly dropped to zero.

(C) The second test was a simulated covert test. The coliphage was introduced into the system by a back-pressure technique at a drinking fountain. This is the technique a saboteur might use. Neither the building occupants nor operating personnel were advised that such a test was planned. We were not challenged and apparently undetected.

(C) The pressurized tank used to introduce agent materials contained 400 milliliters of T-3 coliphage, count  $1.5 \times 10^{10}$  organisms/gram, and 15 grams of sodium thiosulfate pentahydrate in 150 ml of water. The total number of coliphage particles was  $400 \times 1.5 \times 10^{10}$  or  $6 \times 10^{12}$ . Because of losses inherent in the simulated covert attack, an increase in number of coliphage particles was planned; but owing to filtrations performed as a safety measure, the count had decreased and fewer organisms were used in challenging the system, rather than an increase. One-half hour after introducing the agent material, recoveries of  $1 \times 10^6$  and  $8 \times 10^5$  particles/ml were obtained. Two hours after start of test, the analysis for available chlorine was positive. Living coliphage organisms were killed quickly.

(C) We are now in the process of evaluating the risk if a pathogen had been used. To do this, information is needed on compatibility of sodium thiosulfate and pathogen, infectivity or toxicity of pathogen by the oral route, resistance of pathogens to available chlorine, and on ease of producing pathogens in high concentration in the laboratory. It is apparent that a number of pathogenic organisms and toxins are available to the saboteur in planning an attack against a selected group of target personnel.

(C) A thorough study is being conducted to assemble all available data from which oral dose of agents can be derived.

EM 101 FROM  
SEP 4 1975  
CIA

(C) From limited consultation with design engineers, it should be possible to develop simple guidelines for planning an attack on a group of people that work in a building constructed with a circulating chilled drinking water system. The guidelines would indicate how much pathogenic agent and how much sodium thiosulfate to use in a specific building. Easy-to-get information in four categories is all the saboteur needs:

1. Number of fountains in building.
2. Approximate total floor area and type of activity.
3. Approximate number of employees.
4. Available chlorine content of water supply at time of attack.

Weather and climate in the target area may need to be considered in a specific situation.

[DELETED]

RECEIVED FROM

SEP 4 1975

CIA

## EXHIBIT 13

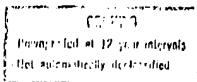
17 February 1970

Special Operations Division  
Toxin Inventory

<u>Material</u>	<u>Quantity</u>	<u>Storage Area</u>	<u>Recommendation</u>
Paralytic Shellfish Toxin (XIII)	0.2 grams	Safe Rm 223A/1412	Retain
Shellfish Toxin A (Re-Dried)	0.01 grams	Safe Rm 223A/1412	Retain
Shellfish Toxin A (Clam)	0.01 grams	Safe Rm 223A/1412	Retain
Botulinum Toxin (A) (Non-Purified)	265 grams	Deep Freeze Rm 223/1412	Dispose
Botulinum Toxin (D)	150 ml	Refer Rm 223A/1412	Dispose
Staph Enterotoxin (B) (PBPA)	2.5 grams	Deep Freeze Rm 223/1412	Retain
Paralytic Shellfish Toxin (Clam)	20.0 grams	Rm 223A/1412	Retain
Paralytic Shellfish Toxin (Clam)	2,057 mgs	Safe 172C3/1412	Retain

NOT RELEASE TO FOREIGN NATIONALS  
EXCEPT BY AUTHORITY OF *Dr. Boyle*  
DATE *19 Feb 1970*

DECLASSIFY on *4/25/75*  
Classified by *Robert Andrews*  
Senior Advisor to the  
General Counsel, OSD





## APPENDIX

CENTRAL INTELLIGENCE AGENCY  
WASHINGTON, D.C. 20505

16 September 1975

The Honorable Frank Church, Chairman  
Select Committee to Study Governmental Operations  
With Respect to Intelligence Activities  
United States Senate  
Washington, D. C. 20510

Dear Mr. Chairman:

At the proceedings of your Committee on the morning of 16 September 1975 I may have conveyed an impression which I did not intend. If by chance you or other members of the Committee got a similar impression, it is important that I clarify the record now, since it might affect your line of questioning of future witnesses.

When I was being questioned as to the destruction of certain CIA records I was thinking of the question in its broadest context; namely, drugs, bacteriological agents and chemical agents. I thus answered that there were indications of record destruction in November 1972.

I realize that most listeners might have inferred that I was indicating that records relating to the CIA/Ft. Detrick relationship, in particular, records relating to Project MKNAOMI, were destroyed. The facts are these: records relating to CIA's drug program in general were destroyed in January 1973, but there is no evidence that records of Project MKNAOMI or of the CIA/Ft. Detrick relationship were destroyed, other than possibly as included in the general group in January 1973. I would appreciate it if you would advise the other members of the Committee to this effect.

I also referred mistakenly to a memorandum between former DCI Helms and Dr. Gottlieb regarding the destruction of records. This was based on a misunderstanding which occurred during my hurried consultation with Dr. Stevens. We have no knowledge of any such memorandum.

Sincerely,

*W. E. Colby*  
W. E. Colby  
Director

RECEIVED

SEP 16 1975

CIA

