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PA/HO Department of State
E.O. 12958, as amended
August 6, 2007

NSC REVIEW GROUP MEETING

Thursday, January 29, 1970

Time and Place: 2:37 P.M. - 4:00 P.M., White House Situation Room

Subject: U.S. Policy on Toxins (NSSM 85)

Participation:

Chairman - Henry A. Kissinger	OEP - Haakon Lindjord
State - Richard F. Pedersen William I. Cargo Capt. George Birdt Donald McHenry	USIA - Frank Shakespeare ACDA - Howard Furnas
Defense - G. Warren Nutter	OST - Dr. Vincent McRae
CIA - R. Jack Smith	NSC Staff - Michael Guhin Winston Lord Jeanne W. Davis
JCS - RAdm. Frank W. Vannoy	

SUMMARY OF DECISIONS

The Review Group agreed to:

1. reverse the two sentences of Option 2 and rephrase both Options 1 and 2 more permissively so as to reserve the right of production and stockpiling,
2. draft public justifications for each option and clear with USIA,
3. ask OST to determine how many toxic bullets are produced commercially, the method of production and if any controls are exercised on their production or sale.

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(JCS and ACDA circulated proposed changes and additions to the paper at the table prior to the meeting.)

Mr. Kissinger asked for a definition of a toxin.

Capt. Birdt referred to recent reports by the UN Secretary General and the World Health Organization which defined a toxin as a chemical, with the only difference between toxins and other chemical agents being that the former are also manufactured by living organisms. It is generally chemical in effect but biological in method of production.

Mr. Kissinger asked how it differs from nerve gas.

Mr. Cargo replied that nerve gas is not produced by living organisms.

Dr. McRae added that nerve gas changes the function of the organs.

Mr. Kissinger asked for a definition of disease.

Dr. McRae defined disease as the introduction of foreign matter into the body.

Mr. Kissinger asked if nerve gas or mustard gas did not constitute foreign matter. He asked if the considerations were how the material was produced or the nature of its effect.

Capt. Birdt noted that nerve gas affected only the respiratory system [sic] and caused almost instant death, whereas a botulinus toxin would cause death in a matter of hours.

Dr. McRae agreed that the difference could be characterized by the different methods of production or by their effects. He said biological agents reproduce themselves while chemical agents do not. Therefore, toxins are chemical although certain of their characteristics resemble biological agents; for example, the body develops antibodies to toxins. He thought the basic distinction was whether or not the agent replicates; if it does not, it should be treated as a chemical.

Mr. Kissinger asked if he were right in saying that the present form of toxins are biologically produced but that their effect is more analogous to chemical agents.

Dr. McRae agreed that this was true of the toxins that we can now produce in quantity.

Mr. Kissinger asked if a toxin were produced chemically, would it not be difficult to distinguish between it and a chemical weapon.

Dr. McRae and Capt. Birdt agreed.

Mr. Kissinger asked for the difference between full R&D and defensive R&D in toxins.

Admiral Vannoy replied that full R&D would give us the capacity to experiment with a weapons system intended for retaliatory use; defensive R&D would not.

Mr. Kissinger asked what you could do under full R&D that you could not do under a defensive R&D program.

Admiral Vannoy said that under full R&D you could develop a toxin of a type you would propose to use. He also said full R&D could consider delivery systems and production techniques, and would vary in the amount of material produced.

Mr. Kissinger asked if we should announce a defensive R&D program, would the other side be able to tell that we are not doing full R&D?

Admiral Vannoy replied that they would not know without fairly full inspection.

Dr. McRae agreed that it would be difficult for the other side to see the distinction.

Mr. Kissinger asked, therefore, what we would accomplish by announcing a defensive R&D program. He recalled that defensive R&D in biological agents involved work on methods of immunization, etc.

Dr. McRae said that under a defensive R&D program we would not be developing delivery systems specifically for bacteriological agents or for toxins; for example, we would not have spray tanks. This, he thought, might be visible to the other side. He agreed that defensive R&D would permit all R&D short of actual engineering development -- the same as the Presidential decision on bacteriological or biological agents.

Mr. Kissinger asked what had been the practical effect of the Presidential decisions on biological weapons -- were we closing down the Pine Bluff installation?

Admiral Vannoy replied that a decision had not yet been reached on Pine Bluff because that plant produced other things, such as riot control agents.

Dr. McRae said Defense and OST were examining the future of Pine Bluff. He said Pine Bluff has both chemical and biological programs and he saw no reason to maintain the biological programs. He said at Fort Detrick the research program had been reduced by approximately one-third, with a personnel cut of approximately 15 percent. He thought these were visible effects of the President's decision and that planned additional moves would make the effect even more visible.

Mr. Kissinger asked what toxins were good for.

Admiral Vannoy replied that with regard to military utility, toxins are an intermediate weapon between biological and chemical weapons. They are better than chemical weapons in some ways but not as effective in other ways as biological weapons. You could cover a larger area with a smaller amount of a toxin than with other chemicals. On the negative side, however, toxins were not persistent.

Dr. McRae added toxins were not as stable as chemicals, and, because they deteriorate in sunlight, would require a heavier dose for an effect of similar duration.

Mr. Kissinger asked what we would use toxins for. He recalled that in a discussion of biological weapons it had been agreed that they were useful for offensive purposes but less useful for retaliation because of the time lag.

Dr. McRae suggested that we separate the discussion into lethal and incapacitating toxins. He said we had one lethal toxin at present -- botulinum -- which he considered a poor military weapon. There is an effective toxoid which can be used to immunize troops which increases the amount required by 10^5 .

Admiral Vannoy agreed with Dr. McRae's comments on botulinum but thought this was not the only lethal toxin on the horizon. He thought there were others possibly with greater potential, such as shellfish poison.

Dr. McRae agreed that we do not expect to get an effective toxoid for shellfish poison and that it was more dangerous than botulinum. It can also probably be produced in significant quantities only synthetically. He thought, however, that masks still provide reasonably good protection.

With regard to chemical incapacitants, he considered they were of limited military utility since a mask can provide reasonably good protection. He cited their effects (high fever, faulty coordination, etc.) and compared them to food poisoning except that they were taken into the body through the nostrils. They take several hours to become effective and their effects last from six to thirty hours, depending on the individual and the size of the dose.

Mr. Kissinger asked, since it was agreed that bacteriological weapons were primarily for offense, if toxins could be useful for retaliation.

Capt. Birdt commented that their incubation period was from one to six hours.

Dr. McRae added that, since masks provide good protection against toxins, they would be good primarily for first use.

Mr. Kissinger said that since we have renounced the first use of chemical weapons, we would therefore not use toxins first. We must assume that if the other side uses toxins first, they would have masks; therefore, toxins would not be the most effective retaliatory weapon against toxins.

Dr. McRae agreed

Admiral Vannoy commented that in the event of leakage a mask would not be as effective against toxins as against some other chemical agents, because the amount of toxin required to be dangerous is less than the amount of a chemical agent.

Mr. Kissinger commented, however, that some chemical weapons can be absorbed through the skin and that therefore masks would have no effect.

Admiral Vannoy replied that anyone using chemical weapons would be wearing decontamination suits.

Dr. McRae agreed that mask leakage would be more serious with toxins than with other chemical agents, adding that it was difficult to operate with masks on for long periods of time. He thought if a military commander faced a choice of retaliating with percutaneous agents or toxins he would use the former.

Mr. Kissinger asked if it would take a smaller dose of toxins than of nerve gas.

Dr. McRae thought toxins would be better than some nerve gas but would not be better than VX for retaliation. He thought a combination of nerve gas and toxins could be best because defending troops would have to be particularly careful of mask leakage and would have to wear bulky decontamination suits.

Mr. Kissinger commented that in the earlier discussion we had covered both chemical and biological agents as first use weapons and as retaliatory weapons. We had decided, with JCS endorsement, that biologicals would not be good as strategic weapons and that nuclear weapons would be preferable. We had agreed that chemical weapons were primarily for battlefield use. He asked if the same were true of toxins. Were they largely a battlefield weapon?

Admiral Vannoy agreed that they were.

Mr. Kissinger asked if, as a battlefield weapon, they would be used essentially in retaliation.

Mr. Smith asked if they could be used against civilian populations as an adjunct to an attack.

Dr. McRae agreed that this would be possible, saying that shellfish poison would be better than nerve gas. However, we do not know how to produce shellfish poison in mass quantities and would have to be able to produce it chemically.

Mr. Kissinger asked why we would use a toxin if we were going to produce it chemically.

Dr. McRae said a chemically produced toxin would be identical in its chemical structure to that produced by the shellfish. He cited synthetic penicillin which differs from bacteriologically grown penicillin only in the way it is made. He thought shellfish poison would be a more strategic weapon than nerve gas because a larger area could be covered with a similar dose.

Admiral Vannoy said that we know little about toxins. We had paid very slight attention to toxins when we were working on biological weapons. Because we knew so little, he thought it would not be in our interests to preclude our examination of various systems for possible future employment. He thought toxins may prove to be the best thing we have.

Mr. Kissinger repeated his understanding that while toxins also exist in nature, in fact, they act like chemicals.

Mr. Furnas added that toxins create a disease which is not transmissible.

Dr. McRae said scientists see the only difference between chemical and biological agents to be that biological agents reproduce themselves and chemical agents do not. While some toxins can reproduce themselves, you can get the same human response to a synthesized toxin although it might require twice as much. He said work was now being done in a laboratory in West Berlin on a synthetic

toxin which could not be distinguished from a natural product -- its chemical structure and the human response to it were exactly the same. He cited alcohol as a toxin because it is a poison, originally produced by a bacteriological process but now easily synthesized. The natural and synthetic products were exactly the same.

Mr. Pedersen asked if the effects of a toxin on the human body were not more analogous to the effects of a biological weapon than a chemical weapon.

Mr. Furnas agreed with the exception that these effects were not transmissible.

Dr. McRae agreed that this was true in bacteriological toxins.

Mr. Kissinger then moved to a discussion of the three options. He asked if anyone saw any other options.

All agreed that they did not.

Mr. Kissinger characterized our present program as including both offensive and defensive R&D: offensive R&D involving the production of agents and including the work on delivery systems with defensive R&D primarily devoted to immunization programs, plus an option to produce and stockpile weapons. We are not now doing this but, under Option I, would not be precluded from it by a Presidential decision.

Admiral Vannoy commented that we have no production facilities for producing in quantity. He said under Option 1 we would not renounce production but would not necessarily opt for it.

Mr. Pedersen thought this option should be defined more clearly since he had understood that it would automatically include the production and stockpiling of toxins.

Admiral Vannoy replied that in practice we had no capability for production and stockpiling of toxins.

Mr. Kissinger agreed that this was true now but need not be true in the future.

Mr. Cargo cited the modest size of the stockpile indicated on Page 4 of the basic paper.

Mr. Kissinger noted the 15 lbs of lethal toxins, but said he did not know how potent this would be.

Admiral Vannoy said these stocks were maintained basically for research purposes.

Mr. Kissinger asked about the "toxic bullets".

Admiral Vannoy replied that those we have are old, are being removed from our stockpile and not being replaced. He noted that such bullets are produced and sold commercially for various uses -- e.g., for use in zoos, fired from sporting rifles to kill a dangerous animal. In response to a question from Mr. Kissinger, he said these bullets are produced in civilian life, both in lethal and incapacitating forms.

Mr. Kissinger asked Dr. McRae to find out how many of these bullets are produced commercially and how, and if any controls are exercised either on their production or sale.

Dr. McRae commented that a botulinum toxin was produced commercially because it was necessary to produce the toxin before you could produce the toxoid.

Admiral Vannoy raised the problem of verification and control of such production.

Mr. Kissinger said that if there were substantial civilian production of toxins for whatever purpose, foregoing the military production would not be as significant -- nor would it be as convincing to the other side.

He asked if we stay with Option 1 do we not in effect nullify the President's decision on biological weapons. How could we answer expected arguments?

Mr. Furnas commented that it was very hard to distinguish between the effect of toxins and of biological agents except that the former are not communicable.

Dr. McRae said we were not producing toxins -- a chemical -- by biological process, would we not also be building up our biological capability -- getting into biological production by the back door. If the President announced that he is using biological laboratories to produce toxins what would be the effect on his decision on biological agents?

Mr. Shakespeare thought it would mitigate the entire effect of the President's statement.

Mr. Pedersen remarked that this then throws you into Option 2.

Mr. Kissinger said that under Option 2 we would not renounce toxins but we would renounce biological production and biological R&D except for defense; we would apply to bacteriological toxins the same criteria as to other biological weapons and would apply to chemically produced toxins the same criteria as to other chemical weapons. In other words, we would make a decision not on the effect of the weapons, but on their origin. The effect of such a decision would not necessarily eliminate toxins but would make the President's earlier decision on biological weapons stand up. Such a decision would be consistent with the earlier biological decision and would not differentiate between different kinds of chemical weapons, i. e., toxins and other chemical weapons.

Mr. Pedersen noted that under Option 2 we would retain the right to produce and stockpile synthetic toxins.

Mr. Kissinger added, however, that we have no present intention to do so.

Mr. Shakespeare referred to CON-6 of Option 2 and the vast PR problems that would be created by this option.

Mr. Kissinger said his problem with Option 3 was that if we eliminated toxins, we would have to go through every weapon in our chemical arsenal to be sure that it does not also occur in a natural form. He asked if the President could not say that we could continue with chemical toxins if they were considered useful (but would not necessarily do so) and could reaffirm our renunciation of the first use of any chemical weapon.

Mr. Pedersen noted that under Option 3, since the only present method of producing toxins is biological, we would be left automatically with only a research program.

Mr. Nutter noted that the biological method might not be the only method of production in the future.

Mr. Kissinger thought that under Option 2 we could say that if chemical methods of production were developed, we could consider the resulting toxins the same as chemical weapons.

Dr. McRae noted that this would permit researchers to produce for R&D purposes but not to stockpile.

Mr. Shakespeare asked once chemical methods of production were developed, what would prevent people from producing by bacteriological methods and saying they were producing by chemical methods.

Mr. Kissinger thought we could close the bacteriological production facilities.

Dr. McRae thought the toxins we would want to produce chemically would be different than those we would want to produce biologically. He said that while Option 2 would permit the elimination of large bacteriological weapon production facilities, factories producing toxins could produce biological weapons.

Mr. Pedersen thought we might revise Option 2 to say that we reserved the right to produce chemically produced toxins.

Mr. Kissinger thought it would be hard to convince anyone that we were not chemically producing toxins if we have a chemical weapons production capability.

Mr. Shakespeare asked how this related to our problems with the Geneva Protocol and the UK Draft Convention. He asked if we would have to oppose the UK.

Mr. Pedersen replied that the British statement in New York would preclude all bacteriological agents for military use. It would bar production of chemical toxins by bacteriological means but would not prevent production by chemical means.

Mr. Furnas said the UK was opposed to toxins but he did not know how they would react to toxins produced by chemical methods. He thought this distinction might stand up legally and ethically but would be hard to defend from an international and a PR point of view.

Mr. Kissinger asked if we would have to say anything about production and stockpiling. Could we just say we are stopping toxin programs? He thought the danger in Option 3 was that it might re-open the entire chemical warfare question. He said he was not convinced of the utility of toxins on military grounds. He noted that when the military had considered various chemical warfare programs it had focussed on other forms of weapons, not on toxins, and it had deployed other chemical weapons overseas. He said although he was not impressed with the arguments on military utility, he did not like to preclude all work on toxins.

Mr. Pedersen commented that although toxins are chemical, they are biological in the public mind.

Mr. Kissinger thought we would be accused of having made a grandstand play on biological weapons, and of now producing something biologically. He noted the President has renounced biological warfare and has retained only defensive R&D with enough offensive R&D to determine the threat and to test our defenses. Why could we not renounce any weapon which was biologically produced -- including toxins? For PR purposes we could

make it clear that we have no chemical production capability. If we should acquire a chemical production capability, we would face the PR problem at that time. By this time we might be considering chemical weapons in the context of arms control discussions at which time we could again renounce first use of chemical weapons.

Mr. Shakespeare asked if, under Option 2, we would proceed with a crash program to synthesize toxins.

Mr. Cargo thought that any Presidential decision could require that any production of synthetic toxins would require specific Presidential authorization.

Admiral Vannoy replied to Mr. Shakespeare's question that, for budgetary reasons alone, there would be no crash program to develop synthetic production methods. He said this was not that high on the priority list.

Mr. Kissinger asked that the three options be revised to indicate that under Option 1 we would not necessarily be producing or stockpiling but would be reserving the right to do so, and to include statements of justification for options 2 or 3 from a PR point of view.

Mr. Pedersen noted with regard to the international aspects of Options 2 and 3 that there was at present a strong drive to eliminate the production and stockpiling of both bacteriological and chemical weapons. When the focus shifts to toxins, everyone will want to ban them also.

Mr. Kissinger said we could certainly agree to consider banning toxins in an international framework but need not ban them unilaterally. He thought no options would be withdrawn from possible arms control negotiations.

Mr. Furnas thought this raised the problem of verification and questioned whether we would be willing to go into an international agreement without adequate verification and inspection.

Mr. Cargo thought that whatever was done would not preclude looking at the decision in the international environment.

Mr. Kissinger thought this was true in the entire range of issues.

Mr. Smith asked if we might break Option 2 into two parts.

Mr. Kissinger thought that under Option 2 we would reaffirm our renunciation of bacteriological warfare; we would renounce production and research in bacteriologically produced weapons, except for defensive purposes; and we would permit R&D on chemical weapons even if the chemical also exists in nature. We would leave the questions of stockpile and production for later decision.

Mr. Smith asked if the first part of Option 2 was not in fact a part of the chemical decision.

Mr. Kissinger thought that the first sentence of Option 2 was stated too positively -- it should be rephrased permissively so as to reserve the right of production and stockpiling. He also thought the two sentences of the option should be reversed.

Mr. Cargo suggested that the same thing be done in Option 1.

Mr. Kissinger asked that the public justification for each option be drafted and shown to Mr. Shakespeare.

Mr. Nutter thought this should also include comments on the form in which any announcement should be made.

Mr. Kissinger noted the grave security problems on this item and the need to limit distribution of documents to prevent such things as the recent New York Times story.

Mr. Cargo asked if, under Option 3, we limited R&D to defense only, what in fact would we be omitting which could be included under offensive R&D. Would we be precluded from R&D on a chemically produced toxin?

Mr. Kissinger thought we would be giving up the options of production and stockpiling.

Mr. Cargo asked if we would be doing R&D on both bacteriological and chemically produced toxins.

Mr. Kissinger asked why bother with chemically produced toxins if we were interested in defensive R&D only.

Mr. Nutter commented that they might be cheaper.

Dr. McRae noted that if, under Option 3, we were denied the right to produce and stockpile by a Presidential decision, the R&D people would probably not try to synthesize toxins since there would be no possibility of their production, stockpiling or use.

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Mr. Cargo asked if we would not need agents for R&D purposes.

Dr. McRae agreed there would have to be some production but it would not be necessary to synthesize.

Mr. Cargo asked if there could not be possible variants between synthetic and naturally produced agents.

Dr. McRae agreed there theoretically could be variants but that naturally produced toxins would be close enough. He thought the nature of our R&D might be different under Option 3 and the military services might order their priorities somewhat differently.

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