of CWA in the Secretary General's Bacteriological (Biological) Non-Proliferation Use", United Nations, New York 1976 [4275], whereas CWA, whether gaseous, liquid or solid, is a cause of their direct toxic effect.

In the essence of the definition of CWA, the CCD/375 of 5 July 1972, and thereby components in BCW, accountabilities of their categorization:

- Some have peaceful applications (components);
- Which may have also peaceful applications in warfare binary component
- Which have also peaceful applications (components).

In the sense of the Swedish proposal of CC (chemical compounds) in the first before reaching the target, the other compounds produce chemicals.

Since it is unlikely that binary compounds which by themselves would be harmful would be involved in the legislation of the Swedish proposal of CWA, but for it also extends it also to binary compounds in this manner the considerations for a comprehensive prohibition of CWA.

The possibility of widening the assortment of chemical compound binary compounds must be brought under consideration of chemical compounds mentioned in the CCD/483 of 8 April 1976. It is likely a larger number of chemicals that would be created thus the chance of their being taken as CWA.

Yugoslav Working Paper Submitted to the Conference of the Committee on Disarmament: Definition of Chemical Warfare Agents, July 5, 1976

In view of the development of new chemical weapons such as binary chemical weapons (BCW) and Multi-Purpose Chemical Weapons (MPCW), it is our desire to provide in this working paper a definition which would include the existing chemical warfare agents (CWA) and compounds in BCW and MPCW.

We consider the MPCW to be such weapons which, in addition to their mechanical and thermal effects, act in the manner characteristic of CW effects.

The Geneva Protocol of 17 July 1925, forbids inter alia, also "the use in war of asphyxiating, poisonous or other gases and of all analogous liquids, materials or devices," and according to United Nations General Assembly resolution 2603 A of 16 December 1969, "any chemical agents of warfare—chemical substances, whether gaseous, liquid or solid—which might be employed because of their indirect toxic effects on man, animals or plants" is contrary to the generally recognized rules of international law.

There exists also a working definition of CWA given in the Report of a WHO Group of Consultants in "Health Aspects of Chemical and Biological Weapons", WHO, Geneva 1970:

Chemical agents of warfare include all substances employed for their toxic effects on man, animals and plants.

This definition was intended to exclude chemicals employed in warfare such as high explosives, smoke and incendiary substances (e.g., napalm, magnesium and white phosphorus) that exert their primary effects through physical force, fire, air-deprivation or reduced visibility.

The above mentioned definitions of CWA proceeded from the point of view of application and covered chemical compounds only which have direct but not also indirect toxic effects on man, animals and plants.

Binary technology, for its part, also points to the deficiencies of such an approach. Through binary technology it is possible under certain conditions to generate the existing CWA from relatively low toxic components which are not covered by the mentioned definitions. In addition, binary technology also makes possible the use of some highly toxic substances which due to their tactical properties (such as stability) could not be used as CWA.

In this connexion, it seems to us that it would be necessary to re-examine the criteria from the very interesting working paper of the Federal Republic of Germany (CCD/458).
Since the last informal meeting with the experts in Geneva (1974), when _inter alia_, also the definition of CWA was discussed, information was published about the use of a new type of weapon, the classification of which, as far as we know, the CCD has not discussed as yet. The weapon involved is a "fuel air explosive" bomb intended for the preparation of helicopter-landing sites. The application of this weapon in the field produces massive death casualties due to its "ultra-lethal" asphyxiating effect. This asphyxiating effect is based on the reaction of ethylene oxide (the basic bomb component) and oxygen from the environmental air. When exploding, ethylene oxide instantly consumes the surrounding oxygen and thereby causes its shortage in the air. This results in sudden death due to asphyxiation.

Bearing in mind asphyxiation as the cause of death, which, in addition to mechanical and thermal effects, is one of the consequences of employment of this weapon, we are of the opinion that also this type of weapon should be classified, perhaps as "multi-purpose chemical weapons" (MPCW) or under some other name. It is quite clear that due to the effect of this weapon disturbances of physiological functions (anoxia and suffocation) is caused, being the result of the chemical reaction taking place between ethylene oxide and oxygen from the atmosphere.

In our view, this type of weapon differs from the other weapons which are not classified as CW (such as high explosives, smokes and incendiary weapons) because one of its main effects is death caused by immediate suffocation.

The Geneva Protocol is quite specific as far as this bomb is concerned because it prohibits "agents liable to cause asphyxiation", while United Nations General Assembly resolution 2603 A leaves possibility for discussion on account of the expression "direct toxic effect".

In order to reduce in the future any ambiguity to the minimum, we have tried to modify to some extent the existing proposal for the definition of the CWA in the working paper of the Yugoslav delegation of July 1972:

All chemical compounds _intentionally_ used in quantities which directly or indirectly, immediately or after some time, can produce physiological disturbances or cessation of physiological functions in man and animals, should be considered as chemical agents.

The new definition should be sufficiently comprehensive and should provide for further elaboration of the definition of chemical warfare agents in a more explicit manner as for example:

(a) Classification of the CWA according to application and their poisonous intensity grades,
(b) Differentiation between single-purpose and dual-purpose agents,

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together with the presence of a

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universe according to application and their

single-purpose and dual-purpose

(c) Differential treatment of intermediaries in a synthesis and the

binary components in munitions.

(d) Inclusion in the chemical weapons also of those with “mixed”
effects, one of them being also toxic (direct or indirect), so as to cover
also such weapons as the above mentioned bombs.

In view of the aforementioned it seems to us appropriate to propose
the following definition:

All chemical compounds intentionally used in quantities and manner which
directly or indirectly, immediately or after some time, can produce physio-

logical disturbances or cessation of physiological functions in man, animals and

plants, should be considered as chemical warfare agents.

We hope that this proposal of the definition contains relevant ele-

ments which might serve as a useful basis of the formulation of the

final text of the definition.

Statement by the British Representative (Allen) to the Confer-
ence of the Committee on Disarmament: Chemical Weapons,
July 6, 1976

This morning I would like to introduce the United Kingdom work-
ing paper CCD/502 on the feasibility of extra-territorial surveillance
of chemical weapons tests by air monitoring at the border.

A major difficulty standing in the way of international agreement
on disarmament and control of chemical agents and weapons is the
problem of verification. Two possible ways of verifying that pro-
scribed field tests of chemical weapons are being carried out would be:

(a) Surveillance by a satellite which monitored chosen areas of
the earth's surface for the presence of chemicals of known military
significance. This has already been discussed in United Kingdom
working paper CCD/371;

(b) Surveillance, by ground stations sited outside national bound-
aries and equipped to detect the same chemicals, of air masses which
had passed over areas where chemical weapons were thought to be
produced or tested.

Once a reliable indication of an infringement of a convention had
been obtained by one of these surveillance techniques, then case for
on-site inspection would be greatly strengthened. Techniques are
already available that would enable evidence of the production or
testing of chemical weapons to be obtained by examination of soil,
water and vegetation taken either from the suspect site or from its
immediate environs if the site itself was inaccessible.

1 CCD/PV.709, pp. 15–16.
2 Not printed here.
3 Documents on Disarmament, 1972, pp. 408–415.