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WORKING PAPERSome aspects of verification in a chemical weapons convention

During the negotiations held so far in the CCD and CD as well as in the working papers of some delegations it has been emphasized that verification is the basis for reaching an agreement in the elaboration of a convention on the ban of chemical weapons. Objective considerations of the verification procedure have indicated the complexity of this problem, both from its technical and political aspects. However, it can be concluded that there exists an agreement in principle on most of the technical issues of verification.

As is known, the Geneva Protocol of 1925 prohibits the use in war of chemical weapons. Since the Protocol of 1925 does not specifically prohibit the development, production and stockpiling of CWA, this was taken by some major military powers as a justification for intensive research to obtain new types of chemical weapons. Other industrialized countries also have experience in research and development of CWA, of types and quantities of CWA's which are used for the purpose of technical and medical protection (the developing of protective equipment, detection, decontamination, medical treatment and other).

At the meetings of the Committee on Disarmament and the group of experts held during 1980, 1981 and 1982, there was a harmonisation of views regarding a series of very important issues such as: the scope of the future convention, definitions of chemical weapons and toxicity criteria, as well as on the need for States to declare their chemical weapon stocks and production units and agree to a fixed time-table for their destruction. However, the appearance of binary weapons has introduced new elements, even in cases when agreement had, in principle, been reached. Thus, for instance, the components of relatively low toxicity and non-toxic components (precursors) which are an integral part of binary weapons cannot be categorized according to the already adopted toxicity criteria of CWA. The fact that binary weapons contain "non-toxic" substances is of importance only to those who produce and possess such weapons and this primarily when it concerns their production, stockpiling and destruction. However, if one bears in mind the purpose of binary weapons, there

is then no difference from CWA which are today classified, in terms of toxicity, as supertoxic lethal chemicals. These data point to the indispensability of applying chemical, physical and biological methods of detection and identification for the purpose of verifying binary weapons in the course of production and stockpiling. The application of the cited methods is also very important when monitoring and proving the existence of activities linked with the verification of possible use of chemical weapons as well as for the monitoring of the destruction of CWA stocks in general. On the other hand, the combining of chemical, physical and biological methods creates the conditions for a credible verification of the existence or use of chemical weapons. The implementation of verification will be facilitated if agreement is reached with regard to the standardization of methods because results from several laboratories could then be compared and reproduced.

The verification of chemical weapons should, in our opinion, be implemented on the basis of a national and international procedure, where we consider that national verification does not preclude international verification but rather that they complement each other. In order to increase confidence among countries, it is possible that both national and international verification be based on an agreed, generally acceptable and unified identification system - methods that would be standardized for particular CWA categories. This, of course, does not preclude a separate national approach especially when a country has qualified personnel, equipment and organization in the gathering of samples, data processing and other. The standardizing of the methods of international verification can greatly facilitate the national verification system and chemical defense measures, in those countries as well which have no experience in developing their own verification methods. The standardizing of verification methods presupposes their periodical modification in accordance with scientific and technological progress. It is understandable that the introduction of new methods and procedures should be subject to agreement and acceptance on the part of an international organ created by the States Parties of the Chemical Weapons Convention. In our view the arms reduction and disarmament agreements must be founded on reasonable confidence, as is the case with some existing agreements. If there is a decrease in confidence or if there is doubt concerning the violation of agreements, then only verification measures can restore confidence among States Parties to the agreements. This is particularly true for the countries which possess production facilities and stockpiles of chemical weapons because the arms race, which is usually motivated by acquiring arms advantage or is justified by the need to not lag behind in the creation of new weapons, is most often initiated by these countries.

Although it may appear at a glance that the term verification is clear and that it is understood what it encompasses, there have so far been different opinions and explanations, which is confirmed by a number of working papers devoted to this issue. Bearing in mind the specific characteristics that CWA possess, the proposed international verification procedures reflect either political or technical difficulties. On the basis of negotiations held and working papers tabled thus far, it seems, in our opinion, that three fundamental categories of international verification appear:

(a) comprehensive (absolute) verification

(b) essential (necessary) verification

(c) limited (insufficient) verification

(a) Comprehensive (absolute) verification presupposes the voluntary acceptance of international inspection and a maximum of openness regarding the obtaining and gathering of necessary data in all stages of the verification procedure. In such a case, the State on whose territory verification is made gives the necessary technical, professional and other assistance according to need and is ready to co-operate. The time-frame for carrying out this verification should not, in principle, be defined, and depends on its scope. This verification comprises: on-site inspection; sampling and determination of samples by using standardized chemical, physical or biological methods. These analyses can be performed in the laboratories of the country in which inspection is being carried out, samples can be sent to the so-called reference laboratories, with regard to which there is agreement on part of the signatory countries to the effect that trustworthy analysis can be performed there, or both possibilities can be used at the same time. Within the scope of this inspection there can also be a medical check-up with the taking of samples (blood, urine, etc.); - near-site inspection: sampling and determination of samples by using chemical, physical or biological methods. These samples could represent contaminated air, effluent water etc. at a distance from the production plant permitting reliable measurements.

(b) Essential (necessary) verification presupposes a mutually agreed acceptance of international inspection which is in accordance with the conditions stipulated in the Convention. It can be carried out periodically (once or several times in a year) or when the need arises. The State on whose territory the inspection is carried out should secure unhindered work for the international commission. The participation

of the country in which the inspection is being carried out in offering technical and professional assistance depends on its readiness for co-operation. In principle, the time needed to complete the verification should be defined but also depends on the scope of the verification. This verification comprises:

- On-site inspection: sampling and sending of samples to reference laboratories outside the country where the verification is being performed.
- Near-site inspection: sampling of contaminated air, effluent water, etc. at a distance from the production plant permitting reliable measurements. Samples are sent to reference laboratories outside the country in which inspection is carried out.
- On-site and near-site inspection should also include medical examinations of people, with the taking of samples (blood, urine and other), who are employed in the plants as well as of people living in the nearest vicinity.

(c) Limited verification does not include the international verification procedure. The results and data of national verification^{1/} are mostly used for the purpose of controlling violations of the Convention which, for understandable reasons, have a limited validity and utility. Limited verification can also use other sources of information which indirectly indicate a possible violation of the Chemical Weapons Convention. Under certain conditions, this verification can also encompass off-site inspection.

In case of suspicion of use of chemical weapons it is possible to use the three mentioned forms of verification (a, b, and c). We would like to underline that regardless of which type of verification is in question, what is essential is that it be performed on time. Thus, for example, when there is a suspicion that persistent CWA are being used, the time needed for taking samples for chemical and physical-chemical determination cannot be longer than two to three weeks, (depending on meteorological conditions). For non-persistent CWA, this time is far shorter and amounts, under the most favourable meteorological conditions to a couple of days.

The classification of international verification in this working paper is considered conditional and we propose it as working material for the considering of different levels of international verification.

^{1/} The national verification system in this working paper is understood to comprise the use of personnel and resources linked to one's own territory and differs from national technical verification which encompasses the monitoring of foreign territory from satellites.