

# CONFERENCE ON DISARMAMENT

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## Working Paper

### National verification measures

#### Introduction

From the onset of the consideration of banning the research, development, production and destruction of chemical weapons, it was widely acknowledged that verification should be based on a combination of appropriate national and international measures which would complement and supplement each other, thereby providing an acceptable system which would, in turn, ensure effective implementation of the prohibition.

A number of working papers have so far been submitted to the Conference on Disarmament, examining different levels of international verification and technical means of implementation. This is in accordance with the generally accepted view that an effective implementation of the prohibition of production and destruction or diversion of stocks and production facilities can only be assured if there is an effective system of international verification of compliance with a Convention banning chemical weapons.

In our working papers (CD/298 of 26 July 1982 and CD/393 of 13 July 1983) we have drawn attention to the fact that both forms of verification should have an adequate role in the implementation of the provisions of the Convention and in all its phases. The role and activities of an international authority and a national authority should be co-ordinated, and they should establish a continuous mutual co-operation. Such co-operation, admittedly, can be best achieved in an atmosphere of general confidence and agreement in the process of entry into force of the Convention. Only in that event can the work of either team be unimpeded and the necessary measures of international and national verification implemented. The purpose of this paper is to present some of our views which, we hope, will be useful in further negotiations on the elaboration of the Convention.

General remarks

Some of the submitted papers express the view that each State party to the Convention should have a national authority whose methods of work would be adjusted to the national legislation of each participating State, and that such an authority should carry out a number of functions related to the Convention. On the other hand, some delegations are of the opinion that the role of the national authority should be limited to assistance to the international authority. Since the views on the role and scope of the activities of the national authority differ so much, we feel that we should, at the outset, establish a basis for them. Such a basis is, in our view, the existing classification of toxic chemicals into the following three categories, which should also be used in determining the level of verification:

- super-toxic lethal chemicals;
- other lethal chemicals;
- other harmful chemicals.

We consider that in the case of the verification of super-toxic lethal chemicals, especially chemical warfare agents belonging to the group of nerve gases, verification should be comprehensive and organized in such a way as to ensure the greatest possible degree of confidence and balance, at each stage of destruction of CW, of potentials at a lower level. The verification of such CW should be carried out under the supervision of an international team in the way determined by the Convention.

As far as lethal chemicals the type of yperite are concerned, however, we believe that depending on the quantity of stocks of such chemical weapons and the capacity of production facilities verification should be international by character, but it can also be carried out in close co-operation with the national authority. Huge stocks of chemical weapons filled with yperite and great capacities of production facilities of this CWA make it necessary to establish international verification. Nevertheless, smaller quantities of these CWAs up to several hundred tons, with the permission of the Consultative Committee, can be destroyed under the supervision of the national authority which is obliged to inform the Consultative Committee within 30 days of the completion of the destruction.

Further, the verification of less toxic chemicals: other lethal chemicals and other harmful chemicals, as well as CWA precursors (See CD/401) can be carried out in almost all stages under control of the national authority. This form of verification of less toxic chemicals is suggested because the majority of these chemicals today are referred to as dual-purpose chemicals and are widely used for peaceful purposes. This is the case, for instance, with phosgene, hydrogen cyanide and other lethal chemicals.

The stocks of chemical weapons filled with these chemicals, however, can be subject to international verification if very large quantities (a few tens of thousands of tons) are involved, and if the chemical industry of the country concerned is unable to convert them into other products during the period of verification.

Table 1 gives a survey of chemicals whose production should be subject to national verification measures.

Table 1. Chemicals to be subject to measures of national verification

Super-toxic lethal chemicals <sup>*/</sup>	
yperite, lewisite and other similar derivatives	
Other lethal and harmful chemicals	
phosgene and its derivations	
hydrogen cyanide and its derivatives	
adamsite	
diphenylcyanoarsine and other arsene compound with similar properties	
Precursors:	
phosphorus	
phosphorus trichloride	pinacolyl alcohol
phosphorus chloride	isopropyl alcohol
dialkylphosphites	cyclohexyl alcohol, etc.
trialkylphosphites	
N,N-disubstitutes- $\beta$ -aminoethanols	piperidinol-3 or -4
N,N-disubstitutes- $\beta$ -aminoethanethiols	hinuclidinol-3
N,N-disubstitutes- $\beta$ -aminoethylhalides	ethylene oxide
	arsene trichloride, etc.

<sup>\*/</sup> Verification of the destruction of stocks of these CWs and production facilities shall be for the most part subject to international verification.

#### Scope of the national system of verification

Due to an enormous task facing the Consultative Committee and an international team of experts during verification, co-operation with the national authority becomes indispensable, in view of the fact that it can render assistance both in technical staff and equipment and laboratories. Within the framework of its responsibilities, the national authority should assist the international team in the process of verification of super lethal chemicals and their key precursors.

Such co-operation should develop in the process of destruction of the stocks of these CWAs, destruction of the production and filling facilities as well as in the process of on-site inspection in the event of violation of the Convention.

On the other hand, the national authority's main task, should, to our mind, be the implementation of the verification of production and transfer of dual-purpose chemicals and precursors. The national authority should, by the assistance of its own team of experts, organize a system of verification, and should be obligated to inform the Consultative Committee in its annual reports about the results of the inspection. In other words, the national authority should monitor in the process of verification:

- production of other lethal and other harmful chemicals which are being used for peaceful purposes;
- production of dual-purpose chemicals and precursors and their diversion into final product; and
- transfer of these chemicals.

Therefore, we can say that the national authority is facing very complex tasks in the process of verification. Having this in mind, it should elaborate in great detail its tasks and the technical measures which it will be using. In order to attain an effective system of verification and to maintain confidence among the States parties, it will be necessary to agree on co-operation among future States parties already during the elaboration of the Convention, on the basis of exchange of expert information, standardization of methods and introduction of similar or identical instruments, as well as on the basis of introducing a compatible computer system.

The list of chemicals given in table 1 suggests that the methods of their verification should be diverse because we are dealing here with chemicals having different chemical structures. If various technological procedures for their production and the capacities of individual facilities are also taken into account, then the task of the national team becomes even more complex.

Furthermore, most of these chemicals are widely used and converted into other products in different branches of chemical industry for peaceful use, and at a given time they can be important also for the production of chemical weapons, whether as the main component or intermediary, or a basic component of binary weapons.

#### Role, tasks and structure of the national committee

Each State party to the Chemical Weapons Convention is obliged to establish a national authority for verification. The role and tasks of that authority are essentially determined by the law of that particular country. Such a national

committee shall have the task to co-operate, in the application of the Convention, with the international authority - the Consultative Committee; to lend it appropriate support in the implementation of verification measures, and to submit to it relevant reports. Regardless of the fact that the administrative and economic systems of many States parties to the Convention are very disparate, we believe that the structure, composition and functioning of the national authority should be such as to ensure efficiency, competence, objectiveness and the necessary confidence, in close co-operation with all international institutions in the implementation of the Convention.

In order that the national committee may meet its obligations resulting from national legislation and co-operation with the Consultative Committee, it should be composed of the following representatives:

- Government representative;
- representatives of science in the field of chemistry;
- representatives of chemical industry;
- military representatives;
- media representatives;
- representatives of one of the States parties designated by the Consultative Committee.

The members of the national committee shall be bound to safeguard the secret, and should not communicate to third persons, either orally or in writing, any information concerning verification and implementation of the Convention.

Depending on the complexity and scope of its activities, the national committee may set up a team of expert consultants in different fields of science (chemistry, chemical analysis, toxicology, economics, technical and chemical information, etc.), as well as to provide adequate laboratories for chemical, physical and toxicological analyses.

These laboratories shall be obliged, on request from the Consultative Committee, to assist the international authority in every possible way in the implementation of verification measures.

The Consultative Committee shall, for the purpose of this Convention, make a list of laboratories for chemical and biological analyses, proposed by the States parties.

Upon its establishment the national committee should take over, in its country, control over production facilities for dual-purpose chemicals, precursors and those chemical agents which today have mass application for peaceful purposes.

Also, the national committee should, in co-operation with the international authority, exercise control over the stocks and closure of production facilities of chemical weapons with CWA the type of yperite, and propose measures for their destruction.

With the assistance of its bodies, the technical secretariat and an expert team, the national committee shall work out a programme of its work.

Within its competence the national committee shall exercise control over the production of other lethal and other harmful chemicals. As these are the chemicals which are now massively used in chemical industry, it will be necessary to carry out an in-depth inspection of production facilities as technological units, and to elaborate, on the basis of that inspection, a programme of control of the production. The annual material balance of the production facility utilizing all its capacities shall serve as a basis for determining further procedure relative to the diversion of, and transfer for permitted purposes of these chemicals. All data received shall be stored in the computer centre which should be connected with an international computer centre. Periodic or annual reports of the national committee on the activities of the facilities in which these chemicals are diverted for permitted purposes shall be examined by the Consultative Committee, and control of transfer exercised on the basis of such reports.

In view of the fact that the production facilities of dual-purpose chemicals and precursors also produce chemicals which are massively used in chemical industry for the production of pesticides, pharmaceuticals, polymers, etc., but which basically can be used either as a component or intermediary for the production of chemical weapons, the control of their production should be exercised continuously in order to know exactly for which purposes they are used.

Having in mind that such complex control is exercised for a large number of these chemicals, a detailed material balance of production and diversion for permitted purposes shall be elaborated to that end. All data shall be stored in appropriated national computer centres, while periodic reports shall be submitted to the Consultative Committee on the production and transfer of these chemicals.

Having in mind a whole variety of chemicals and precursors (table 1) which should be monitored by the national committee, it should work out a detailed programme of work and scope of activities in collaboration with the Consultative Committee. In order to be able to carry out this rather extensive work, the national committee shall, in co-operation with other national committees and the Consultative Committee or a technical team of experts, standardize chemical and physical methods for the control of production. The instruments and equipment

(monitoring system) installed in such facilities should be compatible and ensure an exchange of information. All data should be stored in the computer centre where they will be processed on the basis of a uniform information technical system and reported to the Consultative Committee.

On the basis of the received reports on the material balance of production and the transfer of these chemicals, if there is doubt that the data are ambiguous, the Consultative Committee shall decide on the control of each facility individually, in accordance with the procedure envisaged by the Convention.