CONVENTION ON THE PROHIBITION OF THE DEVELOPMENT, PRODUCTION, STOCKPILING AND USE OF CHEMICAL WEAPONS AND ON THEIR DESTRUCTION

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1. Chemical Weapons - their Characteristics and Properties

Chemical weapons are munitions and other devices which use the toxic effects of chemicals on living organisms to cause death or other harm. The definition of the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (hereinafter referred to as "CWC") only includes toxic effects on human beings and animals, not effects on plants (e.g., herbicides). In order to qualify as a chemical weapon, the toxic effect of the munitions must not necessarily be lethal. Other forms of harm (incapacitation) are sufficient even if they are only temporary. Whether chemicals which under normal conditions of use only cause short term irritation (e.g., tear gas) are also covered is controversial.

Toxic chemicals can spread over large areas and affect large numbers of people. Chemical weapons are therefore considered as "weapons of mass destruction".

2. The Way to the CWC

The use of chemical weapons during the First World War (in the beginning a surprise attack) generated a great shock in public opinion and soon triggered initiatives to ban these weapons, both their use and later their possession. These efforts started with the so-called 1919 Paris Peace Treaties which prohibited the possession of such weapons by the States which had lost the war. A prohibition of the use of these weapons, based on the language of the Paris Peace Treaties, was first stipulated in the Treaty for the limitation of Naval Armament adopted by the Conference on the Limitation of Armament held in Washington in 1922 and then in the 1925 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (hereinafter referred to as "the Geneva Protocol"). The Geneva Protocol constituted a major breakthrough as it was widely ratified, although it was slow in finally winning real universal participation. Chemical weapons were also an important part of the (eventually unsuccessful) arms control negotiations conducted under the aegis of the League of Nations.

After the Second World War, it was again the use of chemical weapons, namely, the use of tear gas and herbicides by the United States in the Vietnam War, which triggered new attempts to strengthen their ban. The United Nations General Assembly adopted resolutions to this effect declaring the content of the Geneva Protocol to be part of customary international law and at the same time inviting States to adhere to the Protocol (see in particular resolutions 2162 (XXI) B of 5 December 1966 and 2603 (XXIV) of 16 December 1969). A ban on possession of such weapons became part of the arms control negotiations conducted under the aegis of the United Nations (Conference of the Committee on Disarmament (CCD)). It was possible to separate the question of biological weapons, which became the object of a special treaty in 1972. Yet, the negotiations on chemical weapons lasted for more than 20 years, the major stumbling-block being a compliance system which had to be effective on the one hand, but not too intrusive on the

other. The final success of these negotiations was the adoption of the CWC in 1992, which entered into force in 1997. As of July 2011, 188 States had become parties to it.

3. The Prohibitions and Obligations

The prohibition of chemical weapons contained in the CWC has different aspects.

First, an arms control obligation: the prohibition to develop, produce, otherwise acquire, stockpile, retain or transfer chemical weapons.

Second, a disarmament obligation: the obligation to destroy or recommit to peaceful purposes chemical weapons in the possession of a State party, abandoned chemical weapons and chemical weapons production facilities.

]Third, a prohibition belonging to the law of armed conflict: the prohibition to use chemical weapons, including a prohibition to use riot control agents as a method of warfare. As to the prohibition of herbicides, the CWC only refers in its preamble to other relevant rules of international law.

4. The Compliance System

An elaborate mechanism to ensure compliance with the convention is the distinctive mark of the CWC. It is administered by a special international organisation, namely, the Organisation for the Prohibition of Chemical Weapons (OPCW). It consists of a number of different elements:

- routine verification of the destructions which are required;

- routine verification of the non-diversion of certain chemicals from peaceful to military purposes;

- inspections in cases of doubt about compliance (challenge inspections);

- reactions to non-compliance (enforcement, settlement of disputes);

- national measures of implementation.

The different verification procedures are regulated in a highly detailed way in the Annex on Implementation and Verification to the CWC (hereinafter referred to as "Verification Annex"). The rationale of this sophisticated system is to strike a balance between the various interests at stake. On the one hand, there is the interest in the effectivity of controls which requires a certain intrusiveness, necessary to detect covert violations. On the other hand, there are legitimate interests (security, industrial secrets, safety of chemical production processes) which require restraint in controls.

4.1 Routine Verification

4.1.1 Verification of Destruction

The point of departure of the verification of destruction is the declarations made by a State party of existing stocks, sites of abandoned chemical weapons and production facilities. The sites and facilities are subject to regular inspections by the inspectors of the Technical Secretariat of OPCW.

4.1.2 Verification of Non-diversion

Practically all chemicals which can be used to produce chemical weapons have beneficial civilian uses. Therefore, the diversion of chemicals from such civilian uses to military purposes is a major problem. The Verification Annex contains several lists of chemicals which have the potential of being diverted in this way and subjects chemicals contained in these lists to controls of different intensity, the control being most intensive for chemicals having the greatest potential of use for weapons purposes.

The verification system poses major challenges for national implementation. As the chemicals in question are, as a rule, in the hand of private industry, Governments must make sure that they have knowledge about all sites where the listed chemicals are handled to enable them to make the required declarations. The basis of the control is a balance sheet (input-output) of the substances in question. Correct records are therefore essential. The verification relates to the correctness of these records. When this verification takes place on site, it must be made sure that the industrial processes are not hampered and that no accidents occur. This is thus a very demanding system where it has been essential to engage industry in its design and implementation.

4.2 Clarifications and Challenge Inspections

If a State party has doubts about compliance by any other State party, it may ask for a clarification. It may also request an on-site challenge inspection of the location where the doubtful activities allegedly take place. This is a necessary complement to the routine verification procedures which are all limited to "declared" facilities. Activities taking place outside these declared facilities are not covered by routine inspection. The challenge inspection is necessary to fill this possible gap in the monitoring system.

The procedural barriers to this request are low, but access by inspectors is strictly regulated.

4.3 Verification – Common Rules

The verification is performed by an international staff, members of the Technical Secretariat of OPCW. There are strict rules on confidentiality, including a specific dispute settlement procedure. This is an important safeguard for the protection of the interests of States which are subject to this procedure.

4.4 Enforcement and Settlement of Disputes

If inspections reveal non-compliance, the Secretariat brings the case before the OPCW Executive Council or even the Conference of States Parties. Among the measures which can be taken are such sanctions as the suspension of membership rights.

The Executive Council or the Conference may also bring the case before the United Nations. The Security Council may then decide to take enforcement action according to Chapter VII of the Charter of the United Nations.

In addition to this enforcement system, the CWC provides for a traditional inter-State dispute settlement procedure.

4.5 National Implementation

The functioning of the CWC depends to a large degree on national measures of implementation, two of them being of particular importance. First, there must be effective criminal sanctions against persons violating the prohibitions of the CWC. Second, as the verification procedures have to be implemented by and within industry, national legislation must ensure cooperation by the enterprises and other private actors concerned.

5. Cooperation and Assistance

Complementing the arms control duties established by the CWC, there are duties on assistance and exchange of information concerning the protection against chemical weapons as well as on economic and technological development regarding chemical activities not prohibited by the Convention.

6. The Organization for the Prohibition of Chemical Weapons

The functioning of the treaty system is administered by OPCW. In essence, it has the usual tripartite structure of international organizations: a plenary organ, the "Conference of States Parties"; a limited organ composed of 41 States elected by the Conference, the "Executive Council"; and a secretariat, the "Technical Secretariat", headed by a Director-General. The major task of the Technical Secretariat is, as already mentioned, the administration of the verification system.

The seat of OPCW is The Hague, the Netherlands. The Organization and its personnel as well as the representatives of the member States enjoy the usual privileges and immunities accorded to intergovernmental organizations. The Organization possesses international legal personality. It is an autonomous treaty organization, not a specialized agency of the United Nations. Its relationship with the United Nations is governed by a special agreement concluded between the two Organizations.

7. The Current Situation

In 1998, OPCW started its operation. The system of declarations works well. Destruction, being a difficult technical procedure, is in some cases behind schedule. There are assistance measures for countries having difficulties in complying with their destruction duties. The system of routine inspection of non-diversion works reasonably well. So far, no challenge inspection has been requested.

Related Materials

A. Legal Instruments

Treaty of peace between the Allied and Associated Powers and Germany, Versailles, 28 June 1919, League of Nations, *Treaty Series*, vol. 1, p. 403 (registered but not reproduced).

Treaty of Peace between the Allied and Associated Powers and Austria, Saint-Germain-en-Laye, 10 September 1919, League of Nations, *Treaty Series*, vol. 1, p. 409 (registered but not reproduced). Treaty of Peace between the Allied and Associated Powers and Bulgaria, Neuilly-sur-Seine, 27 November, 1919, League of Nations, *Treaty Series*, vol. 1 p. 415 (registered but not reproduced).

Treaty for the limitation of Naval Armament, Washington, 6 February 1922, League of Nations, *Treaty Series*, vol. 25, p. 201.

Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, Geneva, 17 June 1925, League of Nations, *Treaty Series*, vol. 94, p. 65.

Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction, London, Moscow and Washington, 10 April 1972, United Nations, *Treaty Series*, vol. 1015, p. 163.

B. Documents

General Assembly resolution 2162 (XXI) B of 5 December 1966 (Question of general and complete disarmament).

General Assembly resolution 2603 (XXIV) of 16 December 1969 (Question of chemical and bacteriological (biological) weapons).

C. Doctrine

M. Bothe, N. Ronzitti and A. Rosas (eds.), *The New Chemical Weapons Convention – Implementation and Prospects*, Kluwer Law International, The Hague *et al.*, 1998.

G. Gasparini and N. Ronzitti (eds.), *The Tenth Anniversary of the CWC's Entry into Force: Achievements and Problems*, Istituto Affari Internazionali, Rome, 2007.

W. Krutzsch and R. Trapp, A Commentary on the Chemical Weapons Convention, Martinus Nijhoff Publishers, Dordrecht et al., 1994.

R. Trapp, "The Chemical Weapons Convention a decade after its entry into force: challenges and opportunities", *Japanese Yearbook of International Law*, vol. 52, 2009, pp. 127-157.