

**DOCUMENTI
IAI**

VERIFICATION OF DISARMAMENT TREATIES

by Michael Bothe

Paper presented at the the “Tenth anniversary of the chemical weapons convention: assessment and perspectives”,
Rome, 19 April 2007

VERIFICATION OF DISARMAMENT TREATIES

by Michael Bothe

1. Introduction

On the occasion of the 10th anniversary of the entry into force of the CWC, it is appropriate to analyse one special characteristic of the treaty, namely its elaborate compliance system. The core of this system are various fact-finding procedures, called verification. Any evaluation of the performance of the CWC regime has to address this issue of verification. This paper proposes to do so in a comparative perspective, i.e. analyse CWC verification together with other compliance systems in the field of arms control and disarmament. There is an even broader perspective behind this approach as compliance systems are nowadays an important part of other treaty regimes as well, in particular in the field of international environmental law. Modern procedures to ensure compliance with international law owe their progress mainly to two fields: international environmental law and the law of arms control and disarmament. Although the safeguards system developed under the NPT has in many respects set the example, it is the CWC with its comprehensive verification approach which has established the standards, at least in the field of arms control, but perhaps also in other fields. The arms control verification systems which have been negotiated but not put into practice (the BWC Verification Protocol – not adopted; the Comprehensive Test Ban Treaty [CTBT] – not ratified) clearly owe very much to the CWC system, despite all the differences which will be addressed. This paper tries to analyse the design of this system as a tool to deal with security concerns.

The CWC establishes verification systems in relation to four different obligations, namely the obligation to:

- to destroy chemical weapons in the possession of a country;
- to destroy abandoned chemical weapons;
- to destroy chemical weapons production facilities;
- to ensure that toxic chemicals and their precursors are only used for purposes not prohibited by the Convention, i.e. are not diverted to weapons purposes.

The first three obligations are disarmament obligations. The latter one is an arms control obligation, it is designed to prevent new armaments. It is in particular that latter aspect which invites a comparison with other treaty regimes. The other treaties to be considered are the NPT, the BWC (including its Draft Verification Protocol) and the CTBT. The NPT and the CTBT are arms control, not disarmament treaties. The BWC has originally been, like the CWC which was adopted much later, a combined disarmament and arms control treaty. But the negotiated verification system only addresses the arms control aspect.

A basic difference between the four treaty regimes is that the NPT, the CWC and the CTBT establish an elaborate compliance system, while the BWC as it stands just provides for a complaint to the Security Council. While the compliance system of the

NPT, the CWC and the CTBT could also end with the Security Council, seizing the Council is only a means of last resort. It is preceded by an elaborate fact-finding system which normally would make recourse to the Council unnecessary. As to the BWC, the creation of such a system has been rendered impossible by the adamant resistance of the U.S. against a draft Verification Protocol which was very close to being adopted by the Fifth Review Conference in 2001/2002. Nevertheless, the provisions of the draft Protocol will be included in the following comparative analysis of the design arms control mechanisms.

2. The quest for efficiency: the reliability of measures to ensure compliance

In order to evaluate the verification systems in question, it is useful to recall the fundamental conflict of interest which they have to solve. There is a fundamental contradiction between the States' interests. On the one hand, the system must be reliable in order to provide security. Thus, it must be possible to ascertain all facts relevant in respect of compliance. This requires a certain intrusiveness of the system. On the other hand, States have interests in not being exposed to intrusive scrutiny. At least some of these interests are legitimate. They start with the safety of the processes where relevant materials are handled, the maintenance of commercial and industrial secrets and end with military security interests. These conflicting interests must be balanced in the design of the fact-finding procedures.

The major elements of this balance will be described in the following section.

The legal basis for the fact-finding procedures are somewhat different. The NPT (Art. III) only provides for a duty of the non-nuclear weapons states (NNWS) to conclude an agreement with the IAEA for the purpose of verifying their compliance with the treaty obligation. Although the IAEA already conducted some supervision of nuclear activities before the conclusion of the NPT based on guidelines published in the Information Circular (INFCIRC) 66/Rev.2, a new system was designed for the safeguards under the NPT in the form of a model agreement (INFCIRC 153). The latter system was developed in a substantial way through a Model Additional Protocol in 1997. These model agreements do shape the system, but the legal basis for each state remains the individual bilateral agreement. In the case of the CWC and of the CTBT, on the other hand, the essential content of the verification system is regulated in the multilateral treaty itself and in its annexes. The same would apply for the BWC Verification Protocol.

3. The accommodation of conflicting interests in compliance regimes: intrusiveness v. secrecy

The balance between the interests just described is reflected in the design, i.e. in a number of details of the inspection regimes. They are all different. It has to be recalled that the content of any verification system first depends on the content of the relevant obligation. The CTBT relates to a particular activity, namely explosions which may constitute a nuclear weapons test. This has a definite impact on the design of the

verification system. The other three regimes are rather concerned with diverting materials or facilities from a legitimate civilian to a prohibited military use. But as the materials and facilities are different, the verification systems must also be different.

For obvious practical reasons, the CTBT can to a large extent rely on a non-intrusive verification method, which is long-distance monitoring, e.g. through the collection of seismic data. The other systems essentially rely on on-site verification.

In this respect, one basic distinction is the difference between routine inspections on the one hand and ad hoc (challenge) inspections on the other. In respect of the former, the general framework of the inspections is known beforehand. It is thus relatively easy to design a sophisticated system drawing a fine balance. That being so, the basic problem of a system limited to routine inspections is what happens in those facilities which are outside the scope of these inspections. The NPT, the CWC and the BWC Verification Protocol use routine inspections, the CTBT does not. It only provides for ad hoc on-site inspections.

There are four key elements in the verification regimes which are crucial for the balance of interests:

- scope of access;
- scope of fact-finding

- confidentiality;
- reactions to stated or alleged violations.

As to the first element, the controlled access, it is essential that on-site verification activities are possible only in relation to certain defined places. It is only at these places that the State is subject to the intrusive control of on site inspections. As to the scope of fact-finding, the essential point is that information relevant for the purpose of the verification process is targeted, but only to the extent that it is really necessary. That information must not become known to persons outside the circle of those who really need to know. This has to be ensured by appropriate guarantees. The fact-finding ends with a statement of facts by the inspecting body. The question what happens if that statement points to some irregularity is the most delicate one in the system.

3.1 Routine inspections

3.1.1 Controlling access

3.1.1.1 Declarations

The routine verification process of the CWC is designed to find out whether certain chemicals which have a potential of being used for weapons purposes (but which also have peaceful applications) are diverted from civilian to forbidden military uses. For this purpose, the States are obliged to declare all facilities where specific chemicals are handled in specific quantities. It is in relation to these sites that routine verification takes

place. This gives the State a certain factual control over what is subject to the verification process and what not, and it makes the sites to be inspected known beforehand.

The draft BWC Verification Protocol also relies on an elaborate system of declarations. But as the scope of the facilities to be declared is quite extensive, the ensuing verification only covers a selected part of the facilities. There are randomly selected transparency visits, voluntary assistance visits and voluntary clarification visits.

In the case of the NPT safeguards according to INFCIRC 153, the inspections also take place in certain declared facilities at certain strategic points only. After the experience with Iraq and North Korea which had promoted their weapons' programs outside these declared facilities, the declaration duties and the rights of access were expanded in the Additional Protocol. Under certain conditions, a right of access exists even in relation to undeclared facilities.

3.1.1.2 Key data

Another element limiting the verification process is its content. The fact-finding is limited to certain key data. In the case of the CWC, the point of departure for determining what are the key data are lists of chemicals which are known to possess a weapons potential. The routine on site inspections are designed to ascertain the balance (input, consumption, output) of these relevant chemical substances handled in a particular facility. This is thought to be the decisive indicator by which any diversion to prohibited purposes can be detected or excluded.

The concept of the NPT safeguards is based on similar considerations: the diversion of materiel used for peaceful purposes to weapons purposes should be excluded by controlling the materiel balances of the nuclear fuel cycle. This is the core element of the INFCIRC 153 verification system. As it became clear that the assumption underlying the system, i.e. that the verification of materiel balance sheets was

reliable enough as an indicator of compliance, was not quite true, the scope of fact-finding was substantially expanded by the Additional Protocol.

One of the difficult problems of the BWC is the fact that the relevant materials are not really known. Technologically, the field of biological warfare is much more open to new developments. Nevertheless, the draft BWC Protocol defines controlled substances and facilities in a very elaborate way.

3.1.2 Limited publicity

The process of verification is strictly confidential. Confidentiality is indeed a crucial issue of all verification systems. As a matter of principle, the data remain in the Secretariat which is obliged to guarantee their confidentiality.

3.1.3 Reactions

The CWC and NPT verification systems are in a way designed as a self-fulfilling prophecy: their very existence should induce States to comply and not to cheat. The fact that indeed on site inspections are performed considerably increases the political cost of non-compliance as the possibility to pass through unnoticed decreases. Nevertheless, the issue of reactions to non-compliance remains a serious one.

The path from the verification system to reaction to non-compliance is somewhat different under the different treaty regimes.

Under the CWC, the inspections are a task of the Technical Secretariat (TS). The results, in the absence of any general reporting duties, thus remain within the ambit of the Secretariat. Where the TS, however, has, as a result of the verification activities, “doubts, ambiguities or uncertainties about compliance”, it shall inform the Executive Council (EC). The EC, then, may inter alia “request the State Party to take measures to redress the situation”. If this request is not met, it may, inter alia, bring the matter to the attention of the Conference of the States Parties (CSP). The CSP shall “take the necessary measure to ensure compliance” with the Convention. For that purpose, the CSP has three options:

- It may suspend the State’s “rights and privileges under this Convention”;
- It may “recommend” “collective measures ... in conformity with international law”;
- It may bring the issue “to the attention of” the UNGA and the UNSC.

What the GA and/or the SC can do is a matter of their general powers, it is not determined by the CWC. All in all, this is not really a tough looking system of enforcement, except for the fact that behind all this, there is the Security Council entitled to take enforcement action under the Charter.

In the case of the NPT, the technical evaluation of the information received through the verification process is performed by the Secretariat. If a positive finding of compliance by the Secretariat is not possible, the Director General reports to the Board of Governors. The latter may request the state, by a binding decision, to remedy the situation. In the case of persistent non-compliance, the Board of Governors, according to Art. XIII.C of the IAEA Statute,

“shall report the non-compliance to all members and to the Security Council and General Assembly of the United Nations ...”

As in the case of the CWC, their powers concerning further action depend on the Charter of the United Nations.

3.2 Challenge inspections

The possibility of challenge inspections, i.e. on site inspections performed on the request of a State which doubts whether another State complies with its obligations, exists in the case of the CWC the BWC draft Protocol and the CTBT. Under the NPT, their role is to a certain extent fulfilled by special inspections which may, after consultations between the Secretariat and the State concerned, be decided by the Board of Governors.

3.2.1 The obligation to submit to challenge inspections

Under the CWC and the CTBT, the obligation to submit to challenge inspections is rather strict. Under the CWC, there is only a limited control against abuse exercised by the Executive Council. Under the CTBT, the consideration of the Executive council in admitting a request is a rather formal one. In the case of the BWC draft Protocol, the screening of a request for an “investigation” is more complex.

3.2.2 Measures of protection

On the other hand, the State which is subject to these inspections may take certain measure to protect data. The rules concerning access to the inspected sites are very detailed. The inspected State may limit access in certain cases (managed access) (Part X of the Verification Annex, nos. 46 et seq). A similar regime applies to investigations pursuant to the CTBT and the BWC draft Protocol.

3.2.3 Limited publicity

As in the case of routine inspections, the process is strictly confidential.

3.2.4 Reactions

The challenge inspection under the CWC ends with the final report of the inspection team which goes to the EC. The Convention does not say that the EC has the formal power to state in any binding way whether there is compliance or not. Where it “reaches the conclusion ... that further action may be necessary ... it may take the appropriate measures to redress the situation and to ensure compliance with this Convention”. The following steps are the same as in the case of routine inspections.

In this respect, the systems established by the CTBT and the BWC draft Protocol are very similar.

3.3 *The special case of Iraq*

In contradistinction to the treaty regimes just described, the inspection system imposed upon Iraq by the armistice resolution of the Security Council in 1991 was unlimited in

law, limited in practice only by the lack of co-operation of the “host” State. After many had assumed that it was a failure and that Iraq still had weapons of mass destruction and a nuclear weapons programme, it was found out that the system was indeed effective and had discovered everything there was.

The supervision system was established and modified by a series of UNSC resolutions, beginning with resolution 687 (1991), and then continued in particular by resolutions 1284 (1999) and 1441 (2002). The legal basis for these resolutions is Art. 41 (non-military enforcement measures), based on the

assumption that the suspected presence of WMD in the possession of Iraq constituted a threat to the peace.

3.4 Evaluation

As to the treaty regimes, they serve two different functions. The first one is verification as a means of confidence building. Both the CTBT and the BWC draft Protocol provide for particular confidence building measures in connection with verification. Participation in the system instils confidence and gives assurances of security. In this respect, the systems can be considered as successful. The CWC system works quietly and smoothly, the problems being in details, not in fundamental issues. The safeguards system of the NPT covers all NNWS. It is significant for the acceptance of the system that Brazil, Argentina and South Africa have joined it after having renounced to their nuclear option. The members of the former Soviet Union, i.e. of a NWS, also gave up nuclear armament and joined the NPT as NNWS. This would not have been possible had the safeguards system not fulfilled its confidence building function, at least *grosso modo*. The question mark thus left brings us to the second function.

The second function is the prevention of cheating. In the light of the compromise character of the systems which has been stressed above, one could not expect them to be absolutely fool-proof. There have been two cases of cheating – one can say two too much and conclude that the NPT safeguards system has not been successful enough. North Korea started cheating while it still was a party to the NPT. Iraq cheated, too, and for a while successfully. It is only after the general Security Council verification system was imposed on Iraq that the programme had to be discontinued. This shows the pros and cons of the current situation: the existing verification systems are no absolute guarantee against cheating, but the establishment of a system as intrusive as the measures against Iraq is completely unacceptable as a general principle.

4. Conclusions

How effective are the legal restraints on unlawful armaments and in particular on the proliferation of weapons of mass destruction? The answer seems to be the usual optimism/pessimism paradigm: Is the glass half full or half empty?

The C-weapons disarmament and arms control system seems to be in a relatively stable condition. The safe destruction of the existing stocks proceeds, not without problems,

but it works. The inspection system designed to prevent diversion of chemical substances from peaceful to military purposes has started functioning. No major problems are reported.

The B-weapons system, on the other hand, for the time being relies exclusively on the principle of hope. In the absence of anything like a serious system to ensure compliance, the treaty remains symbolic rather than a real factor restraining proliferation.

The NPT is a doubtful design. One may conclude that it has not contained the circle of nuclear powers, but restrained its growth. Although it is one of the multilateral treaties enjoying the major participation, it lacks the necessary universality because of the factual importance of the absentees. Its compliance system has worked reasonably well, but timely discovery of non-compliance has not always been possible. The problem of governments pursuing a nuclear option remains and may even become more acute. And whether the treaty can really prevent nuclear weapons from getting into private hands also remains to be seen. The fact that the NPT Review Conference held in 2005 was unable to take any substantive decision on the various problems of the NPT shows that this treaty regime is in crisis.

Even when and to the extent that verification system work, reaction to non-compliance or to armament by non-participants remains an open issue. Legally speaking, it is in the hands of the Security Council – with all the problems that entails. The unilateral option has also been used, and it remains a threat in the background.

The CWC in a way still stands alone as a model. It creates a non-discriminatory disarmament regime (a neglected distant goal of the NPT) strictly controlled by an on-site verification system, and an arms control measures equally under strict on-site control using both routine and ad hoc inspections. And the system works, despite the technical difficulties and the transaction costs involved.