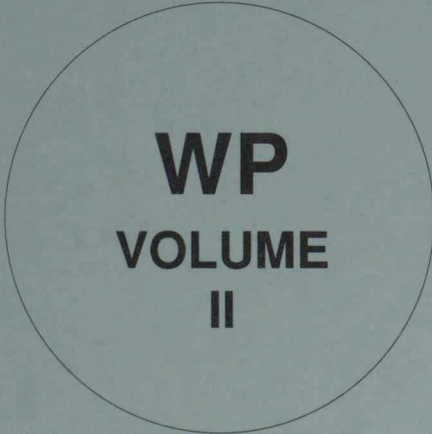


CONFERENCE ON DISARMAMENT

CHEMICAL WEAPONS

WORKING PAPERS

1990 SESSION



**WP
VOLUME
II**

COMPILED AND EDITED BY:

**ARMS CONTROL AND DISARMAMENT DIVISION OF
EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA**

OTTAWA, CANADA

JANUARY 1991

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This set of two volumes covers official documents (working papers) relating to Chemical Weapons submitted in plenary to the Conference on Disarmament during its 1990 session. It is compiled to facilitate discussion and research on this issue.

Volume I includes CD/935 to CD/938; Volume II includes CD/939 to CD/1040.

Note that the index is a chronological listing while the documents themselves are in numerical order by CD number.

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959	CD/959 [EXTRACT]	UN Sec- retary- General	WP dated 26 January 1990 from the Secretary-General of the United Nations addressed to the President of the Conference	31.1.90
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This set of two volumes covers official documents (working papers) relating to Chemical Weapons submitted in plenary to the Conference on Disarmament during its 1990 session. It is compiled to facilitate discussions and research on this issue.

Volume I includes CD/958 to CD/998; Volume II includes CD/999 to CD/1040.

Note that the index is a chronological listing while the documents themselves are arranged in numerical order by CD number.

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484	CD/994	Canada	Letter dated 23 April 1990 from the Deputy Permanent Representative of Canada addressed to the Secretary-General of the Conference on Disarmament transmitting a document entitled "Role and function of a national authority in the implementation of a chemical weapons convention"	30.4.90

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490	CD/1001	USA	Letter dated 12 June 1990 from the Acting Representative of the United States of America addressed to the President of the Conference on Disarmament transmitting the text of the agreement between the United States of America and the Union of Soviet Socialist Republics on the destruction and non-production of chemical weapons and on measures to facilitate the multilateral convention on banning chemical weapons, the agreed statement in connection with this agreement and the US-USSR joint statement on non-proliferation	12.6.90
491	CD/1006 [EXTRACT]	UK	Letter dated 19 June 1990 from the Representative of the United Kingdom of Great Britain and Northern Ireland addressed to the Secretary-General of the Conference on Disarmament transmitting a document adopted at the ministerial meeting of the North Atlantic Council at Turnberry, United Kingdom, on 7 and 8 June 1990	20.6.90
492	CD/1008 CD/CW/ WP.298	Norway	Use of sorbent extraction in verification of alleged use of chemical weapons	26.6.90

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493	CD/1009	Finland	Letter dated 4 July 1990 from the Permanent Representative of Finland addressed to the Secretary-General of the Conference on Disarmament transmitting the latest volume of the Blue Book series on Verification of Chemical Disarmament, entitled "International Inter-laboratory Comparison (Round-Robin) Test, F.1 Testing of Existing Procedures"	5.7.90
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498	CD/1019	Norway	Letter dated 20 July 1990 from the Charge d'Affaires a.i. of Norway addressed to the President of the Conference on Disarmament transmitting a research report entitled "Use of sorbent extraction in verification of alleged use of chemical warfare agents: Part IX"	23.7.90

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499	CD/1020 CD/CW/ WP.310	GDR	Report on a trial challenge inspection	26.7.90
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502	CD/1023 [EXTRACT]	FRG	Letter dated 25 July 1990 from the Representative of the Federal Republic of Germany addressed to the Secretary-General of the Conference on Disarmament transmitting a document entitled "Results of the Inter-Parliamentary Conference on Disarmament"	27.7.90
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506	CD/1029 CD/CW/ WP.318	France	Report on a trial challenge inspection	8.8.90
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509	CD/1033	AHCCW	Report of the <u>Ad Hoc</u> Committee on Chemical Weapons to the Conference on Disarmament	10.8.90
510	CD/1040 CD/CW/ WP.321	Iran	National trial inspection	31.8.90

ANNEXIA

Report on a National Trial Inspection

General remarks

The Austrian National Trial Inspection was conducted in order to contribute to the solution of outstanding technical problems for the elaboration of a global Convention on the Prohibition of the Use, Production, Stockpiling and Possession of Chemical Weapons and on their Destruction and thereby to facilitate the early closing of all such a Convention.

A preliminary report on the results of the Austrian National Trial Inspection was put forward to the Conference of Government Experts (CD/1987) CD/1987 (CD/CONF/1987/200) dated 14 August 1987. The concept hereby contained in this paper is following the blueprint outline of the Convention CD/CONF/1987/200 and CD/CONF/1987/200/Rev.1.

Objectives of the National Trial Inspection

The NTI was planned as a routine inspection in a multi-purpose plant. The facility inspected is part of this plant. It produces a Schedule 2 chemical ("chemical A") for the production of a "chemical B" in a batch process. It was the objective of the Austrian NTI to verify that:

- (a) The Schedule 2 chemical is not used for the production of chemical B, as prohibited by the Convention, that is to say the "chemical B" is not produced, and
- (b) the non-production of chemical B is not achieved by the use of the facility inspected. The inspection was carried out in accordance with the provisions of the Convention, and the results of the inspection are being reported to the Conference of Government Experts at this time by the Austrian Government. The results of the inspection are being reported to the Conference of Government Experts at this time by the Austrian Government.

AUSTRIA

Report on a National Trial Inspection

1. General remarks

The Austrian National Trial Inspection was conducted in order to actively contribute to the solution of outstanding technical problems for the elaboration of a global Convention on the Prohibition of the Use, Development, Stockpiling and Possession of Chemical Weapons and on their Destruction and thereby to facilitate the early conclusion of such a convention.

A preliminary report on the results of the Austrian National Trial Inspection was put forward to the Conference on Disarmament under document CD/948 (CD/CW/WP.260) dated 14 August 1989. The present comprehensive report contained in this paper is following the blueprint outlined in documents CD/CW/WP.213 and CD/CW/WP.248/Rev.1.

2. Objectives of the National Trial Inspection

The NTI was planned as a routine inspection in a multi-purpose plant. The facility inspected is part of this plant. It consumes a Schedule 2 chemical ("chemical A") for the production of a "chemical B" in a batch process. It was the objective of the conducted NTI to verify that:

(a) the Schedule 2 chemical has not been diverted for purposes prohibited by the Convention; this implied the verification of the initial declaration; and

(b) the non-production of chemicals listed in Schedule 1 within the facility inspected. The time selected for the routine inspection was shortly after the end of the work on a production batch. It was the main objective of the trial inspection to find out if compliance with the Convention can be verified at this time by checking the mass balance of the consumption of chemical A on the basis of administration records, technical administration

records, technical records of the production process and the results of samples drawn to check the identity of the product B. Likewise, it was the purpose to verify the non-production of Schedule 1 chemicals in the facility inspected by the absence of traces of these compounds.

3. Degree of realism of the National Trial Inspection

The conduct of a NTI in a multi-purpose production plant represents a realistic reflection of the structure of the Austrian chemical industry which is most relevant for the future Convention. Working out the facility attachment constituted an overall learning process by the technical inspection team, the persons responsible for the production process and the representatives of the Foreign Ministry involved.

The inspection team was separated into two groups which consisted of one analytical group and one technical group which inspected the equipment and the records of the company. In order to obtain independent views on the production process both teams worked independently during the inspection. The results obtained were only merged for the final report.

4. Selection of the team

The complexity of operation of a chemical plant comprising a larger number of different production facilities made it necessary to include in the inspection team experts on business administration techniques as used in modern chemical enterprises, chemical engineering, process control and analytical chemistry.

5. Selection of the facility

The facility selected was one of the very few Austrian facilities consuming a Schedule 2 chemical. It is housed in a building containing other facilities and situated at an industrial site where a number of chemical companies operate other multi-purpose plants. The site also comprises storage facilities and buildings which house administration and research laboratories.

6. Confidentiality of the National Trial Inspection

Confidentiality was one of the main subjects in the preparatory discussions during the initial visit with representatives of the company to be inspected. It was agreed that the inspectors should use, as far as feasible, non-confidential information. Confidential information contained in technical and business documents was only to be used on the inspection site. All participants were Austrian citizens and were obliged to keep confidentiality because of their official positions. In addition, each member of the

inspection team had to sign a special declaration to keep all information gained during the inspection confidential. This declaration was decisive for the readiness of the company to provide confidential information needed for working out the facility attachment and carrying out the inspection.

7. Conduct of the National Trial Inspection

During the initial visit which took place on 13 July 1989 an agreement based on CD/CW/WP.248 was reached between the representatives of the company and the inspection team on the inspection mandate. The discussions included the subject of confidentiality, size and composition of the inspection team and outlined the inspection procedures. The working out of the facility attachment according to the rolling text, version CD/881, pages 124-127, was followed by an introductory briefing on technical and administrative details by company representatives. Based on this information the inspection team defined the nature and extent of background material needed for the actual carrying out of routine inspections.

The exact definition of the material needed proved essential for the adequate preparation of the inspection by the administrative branch of the company and thereby reduced the amount of time needed for the inspection.

PRESENTATION OF THE RESULTS OF THE NATIONAL TRIAL INSPECTION

A. GENERAL APPROACH

1. Objective of the National Trial Inspection

The NTI had the aim as outlined in paragraph 4 of the Annex to article VI (2) of the rolling text CD/881. It was thus conducted in order to verify that:

- the quantities of the Schedule 2 chemical A processed in the facility were consistent with the needs for purposes not prohibited by the convention;
- the declared chemical was not diverted or used for purposes prohibited by the convention; and
- the facility was not used to produce any chemical listed in Schedule 1.

2. Respective provisions in the rolling text of the convention for the conduct of the National Trial Inspection

The National Trial Inspection was designed as a "routine inspection" with the aim to verify that the production processes and the uses of the facility corresponded to the information given by the company in its initial declaration. It was assumed that the NTI simulated one of the series of trial

inspections needed for the verification of the use of a Schedule 2 chemical and for the non-production of a Schedule 1 chemical in the facility inspected. The trial inspection was designed in a way that took into account the following two characteristics of the verification tasks:

(a) The facility inspected was one of several equivalent facilities situated at the same site; and

(b) The Schedule 2 chemical was processed in a batch production. In this context it was agreed that the inspection would be carried out in a time interval between two batch production cycles.

3. Type of the on-site inspection

In accordance with paragraph 5 of the Annex to article VI (2) of the rolling text, the trial inspection was prepared by a number of discussions with representatives of the plant and by an initial visit of the inspectors lasting one day. The initial visit was started by an extensive briefing on the organization of the production and the characteristics of the production process and of the equipment.

4. Advance information declaration

The initial declaration contained the following information:

- the exact definition of the Schedule 2 chemical A;
- the production process by which the chemical is processed;
- the uses of the chemical B produced.

5. Type of facility

The facility inspected was a multi-purpose production facility which is normally used for the synthesis of pharmaceutical products.

6. Type of declared activity at the facility

The facility is used to perform a chemical reaction in which batches of the Schedule 2 chemical A are transformed into the pharmaceutical product B. The final product is, to the largest extent, designated for export.

7. Activity at the facility during the inspection

The trial inspection took place between two production batches; at the time of the inspection the equipment was used for producing another chemical.

B. DETAILED APPROACH

8. The inspection mandate

In order to increase speed and efficiency of the inspection, the inspection team split up into two groups: an analytical group which collected and analysed samples and a technical group which inspected the equipment and

checked administrative and technical documentation. Both groups worked in parallel; their results were merged in a joint discussion shortly before the convening of the closing conference.

9. Composition of the inspection team

The inspection team included the following persons:

- One expert in chemical technology, Professor at the Technical University of Vienna;
- One expert in analytical chemistry, University of Vienna;
- One chemical expert working at the Office of Defense Techniques, Ministry for Defense;
- One representative of the Ministry of Economic Affairs, acting as chairman of the inspection team;
- One representative of the Division for Arms Control and Disarmament, Ministry for Foreign Affairs;
- One representative of the Austrian delegation to the Conference on Disarmament, Permanent Mission, Geneva;
- One representative of the Austrian Federation of Chemical Industries.

It was essential for the inspection team that the participating expert in chemical technology knew the plant from his previous work and at the same time had substantial knowledge of modern business administration techniques as used in today's chemical industry. In spite of this, the inspection could not have been carried out within the envisaged time schedule without the assistance of the technical and administrative representatives of the company inspected.

10. Inspection equipment

All the equipment needed was provided by the company; the analysis necessary for verifying the absence of a Schedule 1 chemical was carried out by another company which belongs to the same industrial group as the company inspected. The costs for the analysis were covered by the Ministry for Economic Affairs and the Ministry for Foreign Affairs.

11. Activities prior to the arrival of the inspection team at the site

All the documents necessary were listed up in advance and then provided by the company. They included the following:

- (a) Information on the organization of the company, including maps indicating the location of the production and storage facilities;
- (b) Information on the chemical reaction which consumes the Schedule 2 chemical A, including information on:

- flow-sheets (chemical formula flow-sheets, equipment flow-sheets and mass flow-sheets at each process step including quantitative information;
- standard operating procedures;
- documentation on the production program listing;
- quantities produced in the different production batches;
- documentation on the storage of the initial product A and the final product B;
- inventory transaction reports.

12. Advance preparation at the site

Advance preparation was limited to preparing access to the necessary updated documentation.

13. Escort and point of contact arrangements

At all stages of the inspection the inspectors were accompanied by representatives of the company which supported them in an extremely helpful and co-operative manner.

14. Additional participants

There were no additional participants present during the inspection.

15. Duration of the inspection and the initial visit

The duration of the initial visit was one day, the duration of the inspection was two days.

16. Measures to protect confidential information

All members of the inspection team were Austrian officials, and, therefore, obliged by law to keep information obtained confidential. In addition, the company requested that all participants signed a document which reaffirmed this obligation. It was agreed that administrative, commercial or technical documents would not be removed from the inspection site without the permission of the company. All documents should only be accessible to the members of the inspection team in the presence of a representative of the company.

17. Introductory Conference

In the course of the Introductory Conference, representatives of the company emphasized, already at this stage as well as repeatedly during the inspection, that the characteristics of the facility inspected would make it impossible to use it for the production of any Schedule 1 chemical.

In the course of the initial discussion, general agreement could be reached on the proposed inspection procedures. In addition to the facility attachment the company provided a plan of the production site indicating the location of other production and storage facilities as well as buildings housing the administration offices and various research laboratories. Information on the process consuming the Schedule 2 chemical A was provided in form of a flow-sheet which included more detailed information on the equipment used. Special emphasis was put on the information on legal constraints of the production processes. Likewise, the question of safety regulations applicable to the respective plant was discussed.

18. Types of records which may be required by the inspectors

The following types of records were identified:

- Administrative records: purchase requisitions, quotation requests, purchase orders, invoices, receiving reports, storage receipts, storage records, stock requisitions, shipment records, transfer records and waste disposal documents;
- Technical records: standard operating procedures, reaction schemes, equipment flow-sheets in case of multi-purpose plants and plant utilization plans.

19. Plant orientation tour

During the plant orientation tour the inspection team visited not only the inspected facility but also other facilities located in the same building, storage areas and the air control and waste water systems serving the inspected facility.

20. Inspection of areas and facility equipment

The verification of the non-production of a Schedule 1 chemical in the facility inspected was verified in the following ways:

- (a) Inspection of the equipment with respect to its suitability for the synthesis of highly toxic compounds

Taking into account existing security standards in highly industrialized countries, a facility for the production of Schedule 1 chemicals requires sophisticated technical equipment in order to ensure safe operation. If such equipment is not present, it can be concluded that a facility is not used for the production of a Schedule 1 chemical.

The inspected facility was visited and its technical equipment inspected in detail. The facility is of standard technical design. No special equipment

as required for the handling or the production of highly toxic substances was found at the inspected site. No special safety precautions regarding highly-toxic substances for the operating personnel were available. No storage facilities for highly toxic chemicals were provided for and there was no equipment found for the disposal of highly toxic waste. The facility moreover is situated within a production complex comprising other production facilities. It was, therefore, concluded that the technical equipment present at the facility would not allow the production of highly toxic chemicals as listed in Schedule 1.

(b) Check of the production records of the facility to verify its use during the period under investigation

In principle, if a facility performs in accordance with the declaration by the company for the period under investigation and thereby makes full use of its capacities, any activity prohibited by the Convention can be excluded.

In order to verify that the products produced during the period under investigation corresponded to the declaration by the company, the log book of the facility and the records of its technical instrumentation were checked.

In spite of the fact that, due to the technical equipment of the facility, any production of highly toxic chemicals as listed in Schedule 1 could be excluded, the inspection team decided to investigate such a possible production by inspecting the production records of the facility. The log book and the recordings of the temperature, pressure and flows at various key points of the production facility were checked. The operating conditions as read from the recordings of the instrumentation of the facility were found to be in full agreement with the requirements of the production processes as declared by the company and as stated in the records of the log book.

It was, therefore, concluded that - during the period of investigation - the production facility was used as declared by the company and no undeclared production had taken place.

(c) Search for traces of Schedule 1 compounds resulting from prior clandestine production

In principle, it seems highly improbable that a facility which falls under a routine inspection scheme (Schedule 2 production) would be used for the production of a Schedule 1 chemical since there would be near certainty of detecting any such production. However, in the case of a modern multi-purpose plant allowing rapid shifts in production chains within the plant, the consideration of some additional aspects for the conduct of the inspection

seems to be useful. This holds specially true for industrial complexes comprising several multi-purpose facilities, as shifts of production between facilities are also feasible.

In such a case, the search for traces of clandestine production of a Schedule 1 compound should include all the relevant facilities of the production complex. As a logical consequence, a re-definition of the term "facility" as used by the Convention in order to include a multi-purpose production unit seems necessary. Likewise, it might be useful to define special sampling points located in common installations, serving more than the declared facility, in order to gain information on the presence or absence of a Schedule 1 chemical. Common air installation systems or waste water systems might serve as such adequate sampling points.

In spite of the fact that the equipment of the facility did not prove to be suitable for the production of highly toxic substances and that the production records had shown the correctness of the declaration of the company, it was decided to identify possible sampling points in order to gain experience for the possible detection of Schedule 1 compounds. In this context, two appropriate sample points were identified:

- At one sampling point dust from a central air filter was collected;
- At another sampling point a waste water sample from the main waste water outlet of the building, housing also other multi-purpose facilities, was taken.

The collection of these samples proved non-intrusive as it neither interfered with the actual production process nor did it provide any information on production technology used.

21. Verification of the non-diversion of the Schedule 2 chemical

(a) Check of the Schedule 2 chemical inventory

The Schedule 2 chemical under investigation is not produced by the company but bought from outside sources. If the inventory records concerning this chemical as reported by the company were correct, no amount of this chemical could be diverted or used for purposes prohibited by the Convention.

An input-output analysis covering a period of one year was established for the Schedule 2 chemical by carefully examining the following documents: purchase requisitions, quotation requests, purchase orders, invoices, receiving reports, storage receipts, storage records, stock requisitions, shipment records, transfer records and waste disposal documents.

At the time of the inspection, the current inventory of the Schedule 2 chemical was checked at the storage facility. The comparison of the input-output data for the chemical concerned and the actual inventory proved to be corresponding with the consumption data given by the company. It could be concluded that the whole amount of the Schedule 2 chemical had been used for the production of the product B.

(b) Cross check of inventory and production records

Although the check of the overall production records, the Schedule 2 chemical inventory records and the production figures for chemical B corresponded with each other for the total period under investigation, a more detailed analysis can show if this correlation holds true for any given moment of this period. This would give additional proof that the data have not been tampered with.

Using quantitative production and shipment records for chemical B and all records relating to the Schedule 2 chemical, a cross check can determine if the correlation of data is consistent for any given moment of the period under investigation. Such a test was not actually executed during the trial inspection but it was found that the data available were sufficient to perform such a test.

(c) Conclusions of the verification of non-diversion of the Schedule 2 chemical

In summary it can be stated that a detailed examination of all production and inventory data for the Schedule 2 chemical proved that the facility had been used as declared by the company and that no amount of the Schedule 2 chemical had been diverted or used for any undeclared purposes.

22. Sample and sample taking procedures

In the course of the inspection, two types of samples were taken:

- Samples of the product B to confirm its identity and purity;
- Samples of dust from the central air filter and waste water outlet to verify the absence of traces of Schedule 1 chemicals.

All samples were taken by company personnel in the presence of an inspector at sampling points not known to the company in advance.

23. Handling of the samples

The samples for the identification and the check of the purity of the product B were transferred to the routine control laboratory for analysis. They were analysed during the inspection.

The samples for the verification of the absence of Schedule 1 chemicals were transported to the analytical laboratory of another company belonging to the same industrial group as the company inspected and analysed with sophisticated equipment and skills necessary to complete this task, despite the fact that specific research samples ("standards") of Schedule 1 chemicals were not available.

24. Analysis of the samples

The samples of the product B were analysed in the presence of an inspector in the plant central production control laboratory by thin layer chromatography. The results corresponded to the product specifications.

The dust and waste water samples were analysed for 14 Schedule 1 chemicals (Sarin, Soman, Tabun, VX, HN-1, HN-2, HN-3, Lewisit 1, Lewisit 2, Lewisit 3, Mustard Gas, Sesquimustard, O-Mustard and BZ). The measures applied gas chromatographic retention indexes in two stationary phases of widely differing polarity with FID, NPD and mass spectrometric detection using mass selective plots after electron impact and chemical ionization. All results obtained were negative.

25. Documentation of the inspection

All documents and data provided by the company remained at the inspection site with the exception of certain documents identified by company representatives.

26. Evaluation by the inspectors

The co-operation shown by the company representatives proved to be essential for the achievement of the inspection goal.

27. Closing Conference

The closing Conference was devoted to a discussion of the inspection findings with the representatives of the company and to the drafting of the "Preliminary Report on an Austrian National Trial Inspection". The completion of the final report was delayed since the results of the off-site analysis of samples were not immediately available. The report was finalized with the consent of the company.

28. Anomalies, disputes and complications

It was pointed out by the inspectors that verifying the material balance of consumption for a Schedule 2 chemical could be simplified by including an additional routine sampling point. The representatives of the company emphasized that such a control point could be easily established.

29. Report by the inspectors

The splitting up of the inspection team into two groups working in parallel - one analytical and one technical group - proved to be efficient not only in reducing the total inspection time but also the time demand on company personnel.

30. Impact of the inspection of the facility operation

The inspection had no impact on the routine operation of the plant.

31. Conclusions

(a) It was concluded that the conduct of a routine inspection in a non-intrusive way and within an acceptable time frame requires the full co-operation of the company inspected. This holds especially true for a multi-purpose plant which forms part of a larger industrial complex.

(b) In view of the fact that the documentation on the production and administration of chemical production complexes in highly industrialized countries form an interrelated net of information, it is practically impossible to hide any violation of the Convention conducted by a single person or a small group of persons. Such an attempt could only be initiated with the active support of the plant management. Also any attempt of falsifying the documentation would pose a major risk due to the extensive amount of time needed and the number of persons involved.

(c) It was emphasized that computerized methods of administration within modern chemical plants pose specific problems for inspecting a company only offering limited co-operation.

(d) It was identified as useful to elaborate a computer program for assisting inspectors in carrying out cross checks of inventory records of Schedule 2 chemicals consumed with records of final production. The application of such examination procedures would require the handling of a large data base. As an additional advantage, such a computer program would guarantee that data fed into the program were not recorded in detail as the output would only identify irregularities and thereby assure confidentiality.

(e) It was also concluded that for the verification of the non-production of a Schedule 1 chemical it would not suffice to check the

production records of the facility equipment alone in case that production at the facility inspected had ceased for part of the period under investigation.

(f) The representatives of the facility inspected expressed a preference that routine inspections should only be carried out by national inspectors. International inspections should be limited to cases of claimed violations of the Convention (i.e. challenge inspections) or possible ad hoc inspections.

CONFERENCE ON DISARMAMENT

CD/1000
12 June 1990

ENGLISH
Original: RUSSIAN

LETTER DATED 12 JUNE 1990 FROM THE REPRESENTATIVE OF THE UNION OF SOVIET SOCIALIST REPUBLICS ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE TEXT OF THE AGREEMENT BETWEEN THE UNION OF SOVIET SOCIALIST REPUBLICS AND THE UNITED STATES OF AMERICA ON DESTRUCTION AND NON-PRODUCTION OF CHEMICAL WEAPONS AND ON MEASURES TO FACILITATE THE MULTILATERAL CONVENTION ON BANNING CHEMICAL WEAPONS, THE AGREED STATEMENT IN CONNECTION WITH THAT AGREEMENT AND THE USSR-UNITED STATES JOINT STATEMENT ON NON-PROLIFERATION */

I have the honour to transmit to you the text of the Agreement between the Union of Soviet Socialist Republics and the United States of America on Destruction and Non-production of Chemical Weapons and on Measures to Facilitate the Multilateral Convention on Banning Chemical Weapons. The Agreement was signed in Washington on 1 June 1990 by President M.S. Gorbachev of the Union of Soviet Socialist Republics and President G. Bush of the United States of America.

I also have the honour to transmit the text of a United States-USSR Joint Statement on Non-proliferation adopted at the summit meeting in Washington.

In accordance with past practice, L. Breckon, the Acting Representative of the United States to the Conference on Disarmament, is to transmit these documents in English to the Conference on Disarmament.

I would be grateful if you would take the necessary steps to issue these papers as official documents of the Conference on Disarmament and have them distributed to the delegations of all States members of the Conference and those of the non-member States of the Conference which are participating in the Conference's work.

(Signed) S. Batsanov
Representative of the USSR to
the Conference on Disarmament

*/ The official English texts of the documents mentioned herein are to be found in CD/1001.

CONFERENCE ON DISARMAMENT

CD/1001
12 June 1990

Original: ENGLISH

LETTER DATED 12 JUNE 1990 FROM THE ACTING REPRESENTATIVE OF THE UNITED STATES OF AMERICA ADDRESSED TO THE PRESIDENT OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE TEXT OF THE AGREEMENT BETWEEN THE UNITED STATES OF AMERICA AND THE UNION OF SOVIET SOCIALIST REPUBLICS ON DESTRUCTION AND NON-PRODUCTION OF CHEMICAL WEAPONS AND ON MEASURES TO FACILITATE THE MULTILATERAL CONVENTION ON BANNING CHEMICAL WEAPONS, THE AGREED STATEMENT IN CONNECTION WITH THAT AGREEMENT AND THE UNITED STATES-USSR JOINT STATEMENT ON NON-PROLIFERATION */

I have the honour to forward to you the text of the Agreement between the United States of America and the Union of Soviet Socialist Republics on Destruction and Non-Production of Chemical Weapons and on Measures to Facilitate the Multilateral Convention on Banning Chemical Weapons. This Agreement was signed in Washington on 1 June 1990, by President George Bush of the United States of America, and by President Mikhail Gorbachev of the Union of Soviet Socialist Republics.

I also have the honour to forward the text of a United States-USSR Joint Statement on Non-Proliferation, issued in Washington during the Summit meeting.

In accordance with past practice, Minister Batsanov, USSR Representative to the Conference on Disarmament, will transmit these documents in Russian to the Conference on Disarmament.

I ask that you take the appropriate steps to issue these papers as official documents of the Conference on Disarmament and have them distributed to all member delegations and non-member States participating in the work of the Conference.

(Signed) M. LYALL BRECKON
Acting Representative of the
United States of America to
the Conference on Disarmament

*/ The official Russian texts of the documents mentioned herein are to be found in CD/1000.

AGREEMENT BETWEEN THE UNITED STATES OF AMERICA AND THE
UNION OF SOVIET SOCIALIST REPUBLICS ON DESTRUCTION
AND NON-PRODUCTION OF CHEMICAL WEAPONS AND ON MEASURES
TO FACILITATE THE MULTILATERAL CONVENTION ON BANNING
CHEMICAL WEAPONS

The United States of America and the Union of Soviet Socialist Republics, hereinafter referred to as "the Parties",

Determined to make every effort to conclude and to bring into force at the earliest date a convention providing for a global ban on the development, production, stockpiling and use of chemical weapons and on their destruction, hereinafter referred to as "the multilateral convention",

Aware of their special responsibility in the area of chemical weapons disarmament,

Desiring to halt the production of chemical weapons and to begin the destruction of the preponderance of their chemical weapons stockpiles, without waiting for the multilateral convention to enter into force,

Recalling the Memorandum of Understanding between the Government of the United States of America and the Government of the Union of Soviet Socialist Republics Regarding a Bilateral Verification Experiment and Data Exchange Related to Prohibition of Chemical Weapons, signed at Jackson Hole, Wyoming on 23 September 1989, hereinafter referred to as "the Memorandum",

Recalling the bilateral commitment to co-operate with respect to the destruction of chemical weapons, contained in the joint statement on chemical weapons issued at Jackson Hole, Wyoming on 23 September 1989, and

Mindful of the efforts of each Party aimed at the destruction of chemical weapons and desiring to co-operate in this area,

Have agreed as follows:

ARTICLE I

GENERAL PROVISIONS AND AREAS OF CO-OPERATION

1. In accordance with provisions of this Agreement, the Parties undertake:
 - (a) to co-operate regarding methods and technologies for the safe and efficient destruction of chemical weapons;
 - (b) not to produce chemical weapons;
 - (c) to reduce their chemical weapons stockpiles to equal, low levels;
 - (d) to co-operate in developing, testing, and carrying out appropriate inspection procedures; and
 - (e) to adopt practical measures to encourage all chemical weapons-capable States to become parties to the multilateral convention.

2. Each Party, during its destruction of chemical weapons, shall assign the highest priority to ensuring the safety of people and to protecting the environment. Each Party shall destroy its chemical weapons in accordance with stringent national standards for safety and emissions.

ARTICLE II

CO-OPERATION REGARDING METHODS AND TECHNOLOGIES OF DESTRUCTION

1. To implement their undertaking to co-operate regarding the destruction of chemical weapons, the Parties shall negotiate a specific programme of co-operation. For this purpose, the Parties may create special groups of experts, as appropriate. The programme may include matters related to: methods and specific technologies for the destruction of chemical weapons; measures to ensure safety and protection of people and the environment; construction and operation of destruction facilities; the appropriate equipment for destruction; past, current and planned destruction activities; monitoring of destruction of chemical weapons; or such other topics as the Parties may agree. Activities to implement this programme may include: exchanges of visits to relevant facilities; exchanges of documents; meetings and discussions among experts; or such other activities as the Parties may agree.

2. Each Party shall, as appropriate, co-operate with other States that request information or assistance regarding the destruction of chemical weapons. The Parties may respond jointly to such requests.

ARTICLE III

CESSATION OF THE PRODUCTION OF CHEMICAL WEAPONS

Upon entry into force of this Agreement and thereafter, each Party shall not produce chemical weapons.

ARTICLE IV

DESTRUCTION OF CHEMICAL WEAPONS

1. Each Party shall reduce and limit its chemical weapons so that, by no later than 31 December 2002, and thereafter, its aggregate quantity of chemical weapons does not exceed 5,000 agent tons. In this Agreement, "tons" means metric tons.

2. Each Party shall begin its destruction of chemical weapons by no later than 31 December 1992.

3. By no later than 31 December 1999, each Party shall have destroyed at least 50 per cent of its aggregate quantity of chemical weapons. The aggregate quantity of chemical weapons of a Party shall be the amount of chemical weapons declared in the data exchange carried out on 29 December 1989, or declared thereafter, pursuant to the Memorandum, as updated in accordance with paragraph 6 (b) of this article.

4. In the event that a Party determines that it cannot achieve an annual rate of destruction of chemical weapons of at least 1,000 agent tons during 1995, or that it cannot destroy at least 1,000 agent tons during each year after 1995, that Party shall, at the earliest possible time, notify the other Party, in accordance with paragraph 10 of this article.
5. Each Party, in its destruction of chemical weapons, shall also destroy the munitions, devices and containers from which the chemicals have been removed. Each Party shall reduce and limit its other empty munitions and devices for chemical weapons purposes so that, by no later than 31 December 2002, and thereafter, the aggregate capacity of such munitions and devices does not exceed the volume of the remaining bulk agent of that Party.
6. Thirty days after the entry into force of this Agreement, each Party shall inform the other Party of the following:
 - (a) its current general plan for the destruction of chemical weapons pursuant to this Agreement and its detailed plan for the destruction of chemical weapons during the calendar year following the year in which this Agreement enters into force. The detailed plan shall encompass all of the chemical weapons to be destroyed during the calendar year, and shall include their locations, types and quantities, the methods of their destruction, and the locations of the destruction facilities that are to be used; and
 - (b) any changes, as of the entry into force of this Agreement, in the data contained in the data exchange carried out on 29 December 1989, or provided thereafter, pursuant to the Memorandum.
7. Beginning in the calendar year following the year in which this Agreement enters into force, each Party shall inform the other Party annually, by no later than 30 November, of its detailed plan for the destruction of chemical weapons during the following calendar year.
8. Beginning in the calendar year following the year in which this Agreement enters into force, each Party shall inform the other Party annually, by no later than 15 April, of the following:
 - (a) any further changes, as of 31 December of the previous year, to the data contained in the data exchange carried out on 29 December 1989, or provided thereafter, pursuant to the Memorandum;
 - (b) the implementation during the previous calendar year of its detailed plan for the destruction of chemical weapons; and
 - (c) any update to the general and detailed plans provided pursuant to paragraphs 6 (a) or 7 of this article.
9. Each Party shall limit its chemical weapons storage facilities so that, by no later than 31 December 2002, and thereafter, the number of such facilities does not exceed eight. Each Party plans to have all such facilities located on its national territory. This is without prejudice to its rights and obligations, including those under the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925.

10. If a Party experiences problems that will prevent it from destroying its chemical weapons at a rate sufficient to meet the levels specified in this article, that Party shall immediately notify the other Party and provide a full explanation. The Parties shall promptly consult on measures necessary to resolve the problems. Under no circumstances shall the Party not experiencing problems in its destruction of chemical weapons be required to destroy its chemical weapons at a more rapid rate than the Party that has experienced such problems.

ARTICLE V

INSPECTION ACTIVITIES

1. Each Party shall provide access to each of its chemical weapons production facilities for systematic on-site inspection to confirm that production of chemical weapons is not occurring at those facilities.
2. Each Party shall identify and provide access to each of its chemical weapons destruction facilities and the chemical weapons holding areas within these destruction facilities for systematic on-site inspection of the destruction of chemical weapons. Such inspection shall be accomplished through the continuous presence of inspectors and continuous monitoring with on-site instruments.
3. When a Party has removed all of its chemical weapons from a particular chemical weapons storage facility, it shall promptly notify the other Party. The Party receiving the notification shall have the right to conduct, promptly after its receipt of the notification, an on-site inspection to confirm that no chemical weapons are present at that facility. Each Party shall also have the right to inspect, not more than once each calendar year, subsequent to the year of the notification and until such time as the multilateral convention enters into force, each chemical weapons storage facility for which it has received a notification pursuant to this paragraph, to determine that chemical weapons are not being stored there.
4. When a Party has completed its destruction of chemical weapons pursuant to this Agreement, it shall promptly notify the other Party. In its notification, the Party shall specify the chemical weapons storage facilities where its remaining chemical weapons are located and provide a detailed inventory of the chemical weapons at each of these storage facilities. Each Party, promptly after it has received such a notification, shall have the right to inspect each of the chemical weapons storage facilities specified in the notification, to determine the quantities and types of chemical weapons at each facility.
5. Each Party shall also have the right to inspect, not more than once each calendar year, subsequent to the year in which destruction begins and until such time as the multilateral convention enters into force, each chemical weapons storage facility of the other Party that is not already subject to annual inspection pursuant to paragraph 3 of this article, to determine the quantities and types of chemical weapons that are being stored there.

6. On the basis of the reports of its inspectors and other information available to it, each Party shall determine whether the provisions of this Agreement are being satisfactorily fulfilled and shall communicate its conclusions to the other Party.

7. Detailed provisions for the implementation of the inspection measures provided for in this Article shall be set forth in the document on inspection procedures. The Parties shall work to complete this document by 31 December 1990.

ARTICLE VI

MEASURES TO FACILITATE THE MULTILATERAL CONVENTION

The Parties shall co-operate in making every effort to conclude the multilateral convention at the earliest date and to implement it effectively. Toward those ends, the Parties agree, in addition to their other obligations in this Agreement, to the following:

1. Each Party shall reduce and limit its chemical weapons so that, by no later than the end of the eighth year after entry into force of the multilateral convention, its aggregate quantity of chemical weapons does not exceed 500 agent tons.
2. Upon signature of this Agreement, the Parties shall enter into consultations with other participants in the multilateral negotiations and shall propose that a special conference of States parties to the multilateral convention be held at the end of the eighth year after its entry into force. This special conference would, *inter alia*, determine, in accordance with agreed procedures, whether the participation in the multilateral convention is sufficient for proceeding to the total elimination of all remaining chemical weapons stocks over the subsequent two years.
3. The Parties shall intensify their co-operation with each other and with other States to ensure that all chemical weapon-capable States become parties to the multilateral convention.
4. The Parties declare their intention to be among the original parties to the multilateral convention.
5. To gain experience and thereby facilitate the elaboration and implementation of the multilateral convention, the Parties agree to conduct bilateral verification experiments involving trial challenge inspections at facilities not declared under the Memorandum or subsequently. The detailed modalities for such experiments, including the number and location of the facilities to be inspected, as well as the procedures to be used, shall be agreed between the Parties no later than six months after the signing of this Agreement.

ARTICLE VII

CONSULTATIONS

The Parties, in order to resolve questions related to this Agreement that may arise, shall use normal diplomatic channels, specifically-designated representatives, or such other means as they may agree.

ARTICLE VIII

RELATIONSHIP TO OTHER DOCUMENTS

1. After the multilateral convention enters into force, the provisions of the multilateral convention shall take precedence over the provisions of this Agreement in cases of incompatible obligations therein. Otherwise, the provisions of this Agreement shall supplement the provisions of the multilateral convention in its operation between the Parties. After the multilateral convention is signed, the Parties to this Agreement shall consult with each other in order to resolve any questions concerning the relationship of this Agreement to the multilateral convention.

2. The chemical weapons, chemical weapons storage facilities, and chemical weapons production facilities subject to this Agreement are those that are subject to declaration under the Memorandum.

ARTICLE IX

AMENDMENTS

Each Party may propose amendments to this Agreement. Agreed amendments shall enter into force in accordance with the procedures governing the entry into force of this Agreement.

ARTICLE X

ENTRY INTO FORCE; DURATION; WITHDRAWAL

1. This Agreement shall enter into force upon an exchange of instruments stating acceptance of the Agreement by each Party.

2. This Agreement shall be of unlimited duration, unless the Parties agree to terminate it after the entry into force of the multilateral convention.

3. Each Party shall, in exercising its national sovereignty, have the right to withdraw from this Agreement if it decides that extraordinary events related to the subject matter of this Agreement have jeopardized its supreme interests. It shall give notice of its decision to the other Party six months prior to withdrawal from the Agreement. Such notice shall include a statement of the extraordinary events the notifying Party regards as having jeopardized its supreme interests

DONE at Washington, in duplicate, this first day of June, 1990, in the English and Russian languages, each text being equally authentic.

s/G. Bush

s/M. Gorbachev

FOR THE UNITED STATES
OF AMERICA

FOR THE UNION OF SOVIET
SOCIALIST REPUBLICS

AGREED STATEMENT IN CONNECTION WITH THE AGREEMENT BETWEEN
THE UNITED STATES OF AMERICA AND THE UNION OF SOVIET
SOCIALIST REPUBLICS ON DESTRUCTION AND NON-PRODUCTION
OF CHEMICAL WEAPONS AND ON MEASURES TO FACILITATE THE
MULTILATERAL CONVENTION ON BANNING CHEMICAL WEAPONS

Paragraph 2 of Article VI of the Agreement stipulates that, "Upon signature of this Agreement, the Parties shall enter into consultations with other participants in the multilateral negotiations and shall propose that a special conference of States parties to the multilateral convention be held at the end of the eighth year after its entry into force. This special conference would, inter alia, determine, in accordance with agreed procedures, whether the participation in the multilateral convention is sufficient for proceeding to the total elimination of all remaining chemical weapons stocks over the subsequent two years".

In this connection, the Parties agree that an affirmative decision would require the agreement of a majority of the States parties that attend the special conference, with such majority including those States parties attending the special conference that had taken the following three steps:

- (a) presented officially and publicly, before 31 December 1991, before the Conference on Disarmament, a written declaration that they were at the time of that declaration in possession of chemical weapons;
- (b) signed the multilateral convention within 30 days after it was opened for signature; and
- (c) became a party to the multilateral convention by no later than one year after its entry into force.

United States-USSR Joint Statement on Non-Proliferation

Washington, D.C.

1 June 1990

The United States of America and the Union of Soviet Socialist Republics oppose the proliferation of nuclear weapons, chemical weapons, missiles capable of carrying such weapons, and certain other missiles and missile technologies. The more nations that possess such weapons, the more difficult it will be to realize the desire of people everywhere to achieve effective arms control and disarmament measures and to reduce the threat of war. Weapons proliferation can provoke or intensify insecurity and hostility among nations, and threatens mankind with warfare of unprecedented destructiveness.

Our discussions over the past months point the way to a new era in relations between our two countries. We have taken major steps toward concluding agreements to reduce our own strategic nuclear arsenals, to bring limits on nuclear testing into force, and to reach a global ban on chemical weapons. Together with the nations of Europe, we are taking unprecedented steps to reduce existing conventional weaponry as part of a process of building a lasting structure of European security. The progress we are making and the commitments we have made in these bilateral and multilateral arms control efforts clearly demonstrate that arms reductions can contribute to increased security, even when there have been long-standing and deep-seated differences between countries.

The historic steps we have taken to improve United States-Soviet relations and to co-operate in the interests of international stability create the possibility of even closer and more concrete co-operation in the areas of nuclear, chemical, and missile non-proliferation.

With these considerations in mind, the United States and the Soviet Union:

- Declare their commitment to preventing the proliferation of nuclear weapons, chemical weapons, and missiles capable of carrying such weapons and certain other missiles and missile technologies, in particular those subject to the provisions of the Missile Technology Control Régime (MTCR);
- Agree to work closely together and with other members of the international community to develop and put into action concrete measures against the proliferation of these types of weapons; and
- Call on other nations to join in a renewed commitment to effective non-proliferation measures as a means of securing international peace and stability and as a step toward the effective limitation worldwide of nuclear weapons, chemical weapons, missiles, and missile technology.

The two sides have taken specific actions to advance these commitments.

Nuclear weapons non-proliferation

In order to prevent the proliferation of nuclear weapons, the United States and the Soviet Union:

- Reaffirm their steadfast and long-lasting commitment to prevent the proliferation of nuclear weapons and to strengthen the international nuclear weapons non-proliferation régime;
- Reaffirm their strong support for the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and agree that it continues to make an invaluable contribution to global and regional security and stability;
- Urge all countries which have not yet done so to adhere to the NPT;
- Urge all NPT parties to implement scrupulously their International Atomic Energy Agency (IAEA) safeguards obligations under the Treaty;
- Affirm their intention to co-operate together and with other treaty parties to ensure a successful 1990 Review Conference on the Treaty on the Non-Proliferation of Nuclear Weapons which would reaffirm support for the objectives of the Treaty and its importance to international security and stability;
- Support the Treaty for the Prohibition of Nuclear Weapons in Latin America (the Treaty of Tlatelolco) and urge all countries in the region to bring it into force at an early date;
- Reiterate their continuing commitment to strengthening the IAEA, whose unique system of safeguards has contributed to the widespread peaceful use of nuclear energy for social and economic development;
- Support increased international co-operation in the peaceful uses of nuclear energy under IAEA safeguards;
- Call on all non-nuclear weapons States with unsafeguarded nuclear activities to place these activities under international safeguards;
- Agree on the need for stringent controls over exports of nuclear-related material, equipment and technology, to ensure that they will not be misused for nuclear explosive purposes, and urge all other nations capable of exporting nuclear-related technology to apply similarly strict controls;
- Continue to support efforts to improve and strengthen the international nuclear export control régime;
- Support discussions among States in regions of nuclear proliferation concern for the purpose of achieving concrete steps to reduce the risk of nuclear proliferation, and, in particular, join in calling on the nations of the Middle East, southern Africa, and South Asia to engage in and pursue such discussions;
- Agree to continue their regular, constructive bilateral consultations on nuclear weapons non-proliferation.

Missile and missile technology non-proliferation

In order to stem the proliferation of missiles and missile technology, the United States and the Soviet Union:

- Have signed the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles, demonstrating that controls on - indeed the elimination of - such missiles can enhance national security;
- Reaffirm their intention that the START treaty be signed by the end of the year;
- Affirm their support for the objectives of the Missile Technology Control Régime, covering missiles, and certain equipment and technology relating to missiles capable of delivering at least 500 kilograms of payload to a range of at least 300 kilometres and they call on all nations that have not done so to observe the spirit and the guidelines of this régime;
- Are taking measures to restrict missile proliferation on a world-wide basis, including export controls and other internal procedures;
- Have instituted bilateral consultations to exchange information concerning such controls and procedures and identify specific measures to prevent missile proliferation.
- Agree to work to stop missile proliferation, particularly in regions of tension, such as the Middle East;
- To this end, affirm their intent to explore regional initiatives to reduce the threat of missile proliferation, including the possibility of offering their good offices to promote such initiatives;
- Recall that they favour international economic co-operation including co-operation aimed at peaceful space exploration, as long as such co-operation could not contribute to missile proliferation;
- Appeal to all countries - to exporters of missiles and missile technology as well as purchasers - to exercise restraint, and express their willingness to continue their respective dialogue with other countries on the non-proliferation of missiles and missile technology;
- Are resolved, on their part, to continue to work to strengthen such international restraint with respect to missile and missile technology proliferation.

Chemical weapons non-proliferation

In order to stem the use and proliferation of chemical weapons, the United States and the Soviet Union:

- Declare that a multilateral, effectively verifiable chemical weapons convention banning the development, production and use of chemical weapons and eliminating all stocks on a global basis is the best long-term solution to the threat to international security posed by the use and spread of chemical weapons, and that non-proliferation measures are considered a step toward achieving such a convention;
- Will intensify their co-operation to expedite the negotiations in Geneva with the view to resolving outstanding issues as soon as possible and to finalizing the draft convention at the earliest date;
- Have instituted bilateral confidence-building measures, including chemical weapons data exchange and reciprocal site visits;
- Have just signed a trailblazing agreement on destruction and non-production of chemical weapons and on measures to facilitate the multilateral convention on chemical weapons;
- Commit themselves, in that agreement, to take practical measures to encourage all chemical weapons capable States to become parties to the multilateral convention;
- Having declared their possession of chemical weapons, urge other States possessing chemical weapons to declare their possession, to commit to their destruction, and to begin immediately to address, through research and co-operation, the need for chemical weapons destruction capability;
- State that they themselves will not proliferate chemical weapons;
- Have instituted export controls to stem the proliferation of chemical weapons. These measures are not intended to hinder or discriminate against legitimate peaceful chemical activities;
- Have agreed to conduct bilateral discussions to improve the effectiveness of their respective export controls to stem the proliferation of chemical weapons;
- Conduct regular bilateral consultations to broaden bilateral co-operation, including the reciprocal exchange of information on the problems of chemical weapons proliferation;
- Confirm their intent to pursue political and diplomatic actions, where specific cases give rise to concerns about the production, use or spread of chemical weapons;
- Join with other nations in multilateral efforts to co-ordinate export controls, exchange information, and broaden international co-operation to stem the proliferation of chemical weapons;

- Reaffirm their support for the 1925 Geneva Protocol banning the use of chemical weapons in violation of international law;
- Are taking steps to strengthen the 1925 Geneva Protocol by:

Encouraging States that are not parties to accede;

Confirming their intention to provide active support to the United Nations Secretary-General in conducting investigations of reported violations of the protocol;

Affirming their intention to consider the imposition of sanctions against violators of the protocol, including those under Chapter VII of the United Nations Charter;

Agreeing to consult promptly in the event of a violation of the Protocol to discuss possible bilateral and multilateral actions against the offender, as well as appropriate assistance to the victims of such violation;

- Agree that the presence and further proliferation of chemical weapons in areas of tension, such as the Middle East, is particularly dangerous. The two countries therefore affirm their intent to explore regional initiatives in the Middle East and other areas, including the possibility of offering their good offices to promote such initiatives as:

Efforts to broaden awareness of the dangers of chemical weapons proliferation and its negative impact on implementation of the multilateral convention on chemical weapons;

Bilateral or multilateral efforts to stem chemical weapons proliferation, including the renunciation of the production of chemical weapons;

Efforts to destroy chemical weapons in advance of the multilateral convention, as the United States and the Soviet Union are doing.

The United States and the Soviet Union call on all nations of the world that have not already done so to join them in taking comparable, effective measures to stem chemical weapons proliferation.

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CONFERENCE ON DISARMAMENT

London
24 June 1958

English
Diplomatic: 1958/10/10/1000

Handwritten

LETTERS DATED 19 JUNE 1958 FROM THE REPRESENTATIVE OF THE
UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND
TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT
CONTAINING A DRAFT ADOPED AT THE MINISTERIAL MEETING OF
THE NORTH ATLANTIC COUNCIL AT CUSPERAY, FRANCE, ON
25 AND 26 JUNE 1958

On behalf of those States which belong to the North Atlantic Alliance and
are members of the Conference on Disarmament, I have the honour to forward to
you the following document:

"Annex to the Treaty, and Final Communiqué from the Ministerial
Meeting of the North Atlantic Council, at Cusperay, France, on
25 and 26 June 1958".

The document is attached in the official English and French versions. It
should be grateful if you would circulate, as an official document of the
Conference on Disarmament, this letter together with the document attached in
the Ministerial meeting of the North Atlantic Council in its English and
French versions.

Handwritten
T. G. M. G. G. G.
Secretary

CONFERENCE ON DISARMAMENT

CD/1006
20 June 1990

ENGLISH
Original: ENGLISH/FRENCH

(Extract)

LETTER DATED 19 JUNE 1990 FROM THE REPRESENTATIVE OF THE
UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND ADDRESSED
TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT
TRANSMITTING A DOCUMENT ADOPTED AT THE MINISTERIAL MEETING OF
THE NORTH ATLANTIC COUNCIL AT TURNBERRY, UNITED KINGDOM,
ON 7 AND 8 JUNE 1990

On behalf of those States which belong to the North Atlantic Alliance and are members of the Conference on Disarmament, I have the honour to forward to you the following document:

"Message from Turnberry, and Final Communiqué from the Ministerial Meeting of the North Atlantic Council at Turnberry, United Kingdom, on 7 and 8 June 1990".

The document is attached in the official English and French versions. I should be grateful if you would circulate, as an official document of the Conference on Disarmament, this letter together with the document adopted by the Ministerial Meeting of the North Atlantic Council in its English and French versions.

(Signed)

T.A.H. Solesby
Ambassador

5. We welcome the progress attained in the US-Soviet Summit held last week and, in particular, the agreement on major outstanding issues governing a START treaty that will result in deep reductions in both sides' strategic nuclear weapons and greatly expand bilateral military transparency in that area, as well as agreement to begin further talks on strategic nuclear forces specifically devoted to achieving a more stable strategic balance after the current treaty is completed. We took special note of the progress represented by the signature at the Summit meeting of verification protocols for treaties limiting nuclear testing and expressed our satisfaction with the bilateral agreement that will drastically reduce both sides' stocks of chemical weapons.

6. We believe the US-Soviet agreement on reducing chemical weapons stockpiles will provide great impetus towards the earliest possible conclusion of the convention for an effectively verifiable, global and comprehensive ban on chemical weapons now being negotiated, which remains our goal. All Allies hereby state their intention to be among the original signatories to the convention and to promote its early entry into force. We call on all other states to undertake a similar commitment. We reaffirm our determination to work to prevent the proliferation of nuclear and chemical weapons and of missiles capable of carrying such weapons.

CONFIDENTIAL
20 June 1967

USE OF EXPERT ASSISTANCE IN VERIFICATION OF ALLIED USE
OF CHEMICAL WEAPONS

INTRODUCTION

An extensive study of the possibility of verifying alleged use of chemical weapons was conducted by the Norwegian Ministry of Foreign Affairs in 1961. The research has been carried out by the Division for International Criminology of the Norwegian Defense Research Establishment at Trondheim, Norway. The expert reports and working papers submitted to the Conference on Disarmament have been compiled in the publication Contributions to the Conference on Disarmament, 1965-1967 (Group of C. D. I. Secretariat, 1967).

The 1961 report was mainly concerned with the development of methods proposed for verification of alleged use of chemical weapons. This included procedures for identification of the chemical agent and for determining the agent's collection, sample collection, sample preservation and laboratory analysis. The report was published on 11 August 1961 and revised on 11 August 1962.

The research of 1961 focused on the development and use of the complementary methods in verification of alleged use of chemical weapons. This research included, among other things, studies of the use of samples of the chemical agent, the use of samples of the chemical agent, the use of samples of the chemical agent, and the use of samples of the chemical agent. The research was published in the report Contributions to the Conference on Disarmament, 1965-1967 (Group of C. D. I. Secretariat, 1967) and the research results are presented in the report Contributions to the Conference on Disarmament, 1965-1967 (Group of C. D. I. Secretariat, 1967).

The 1961 report also included a study of the use of samples of the chemical agent. This study was based on the assumption that the use of samples of the chemical agent is possible through sample collection, sample preservation and laboratory analysis. The study was published in the report Contributions to the Conference on Disarmament, 1965-1967 (Group of C. D. I. Secretariat, 1967).

CONFERENCE ON DISARMAMENT

CD/1008
CD/CW/WP.298
26 June 1990

Original: ENGLISH

NORWAY

USE OF SORBENT EXTRACTION IN VERIFICATION OF ALLEGED USE OF CHEMICAL WEAPONS

1. INTRODUCTION

An extensive study of the possibility of verifying alleged use of chemical weapons was initiated by the Norwegian Ministry of Foreign Affairs in 1981. The research has been carried out by the Division for Environmental Toxicology of the Norwegian Defence Research Establishment at Kjeller near Oslo. The annual reports and working papers submitted to the Conference on Disarmament have been compiled in the publication Contributions by Norway to the Conference on Disarmament 1982-1987 (document CD/813 dated 7 March 1988).

The 1988 report was mainly concerned with the development of complete procedures for verification of alleged use of chemical weapons. This includes procedures for localization of the contaminated area and for field analyses, sample collection, sample handling, sample preparation and laboratory analyses (CD/857 of 12 August 1988 and CD/861 of 22 August 1988).

The research in 1989 focused on the development and testing of a new, supplementary technique in verification of alleged use of chemical weapons. This technique, headspace gas chromatography, allows liquid and solid samples to be analysed without pretreatment. The headspace technique is a supplement to the sample preparation method developed earlier during the Norwegian research programme, and is of particular advantage in rapid analysis of samples with a high contamination level. The research results are described in document CD/936 of 21 July 1989 and the research report was presented to the Conference with document CD/940 of 31 July 1989.

The sample preparation method developed by the Norwegian research programme is based on the adsorption of chemical warfare agents from aqueous solutions onto a polymer sorbent and its subsequent removal by an organic solvent. This technique, referred to as sorbent extraction, has in the 1989-1990 programme been optimized in order to isolate as efficiently as possible chemical warfare agents and related compounds from different sample materials. The aim of the investigation was to find a general procedure which

can be used for screening samples suspected of being contaminated with chemical warfare agents. The preparation method was tested on samples from different materials. The results and conclusions are summarized in this working paper.

2. DETERMINATION OF OPTIMAL CONDITIONS IN SORBENT EXTRACTION FOR ISOLATING CHEMICAL WARFARE AGENTS FROM AQUEOUS SOLUTIONS

2.1. Principles of sorbent extraction

The sorbent extraction technique is widely used for cleaning samples in areas such as biochemistry, environmental chemistry and food analysis.

The technique is based on the principle of adsorption of chemical compounds from an aqueous solution passed through a cartridge containing a polymer sorbent. With this technique the agents are retained on the sorbent.

This procedure requires no advanced laboratory equipment and may be carried out in the field close to the contaminated area. The sample is concentrated on a cartridge and thus reducing the quantity of material which has to be transported back to the laboratory for analysis and making it easy to handle. At the laboratory the chemical warfare agents are removed from the cartridge by means of an organic solvent and analysed by gas chromatography combined with selective detectors or mass spectrometry.

2.2 Factors influencing sorbent extraction

There are several factors which may affect the efficiency of sorbent extraction, and the most important of these have been investigated in order to make the process as efficient as possible. The compounds used in this investigation were the nerve agents tabun, sarin, soman and VX, the related compounds diisopropyl methylphosphonate (DIPMP), isopropyl methyl methylphosphonate (IPMMP) and 1,2,2-trimethylpropyl methylphosphonate (MTMP) and the blister agent mustard gas. Several different polymer sorbents were examined to find the most effective in retaining the above chemical warfare agents and related compounds from aqueous solutions. The amount of sorbent required depends on the sample volume. Different combinations of sample volume and sorbent amount were examined in order to find the optimal combination.

The adsorption of chemical warfare agents to the sorbent may be followed by a washing step where the sorbent may be washed with appropriate solvents to remove sample impurities. The effect of washing with different solvents has been examined. The solvent selected must not remove the chemical warfare agents from the sorbent.

Before analysis, the chemical warfare agents are removed from the polymer sorbent with an organic solvent. The solvents dichloromethane, chloroform, carbon tetrachloride, diethyl ether, acetone, ethyl acetate, hexane, 2-propanol and methanol were examined. Different volumes of the solvents were also investigated in order to find the smallest volume capable of removing the agents from the sorbent.

The temperature during transport or storage required investigation in order to prevent degradation of the chemical warfare agents. The agents tabun, sarin, soman, VX and mustard gas were retained on the sorbent and then stored for different periods of time at +21°C, +2.5°C and -24.5°C before analysis. These temperatures correspond respectively to storage at room temperature, in a refrigerator and in a freezer.

2.3 Results

The results from the 1989-1990 investigation showed that among the non-polar polymer sorbents examined, octadecylsilane (C₁₈) and octylsilane (C₈) sorbents were the most effective in retaining chemical warfare agents and related compounds from aqueous solutions. C₈ was slightly more effective than C₁₈ in retaining tabun and mustard gas from small sample volumes, whereas C₁₈ was most effective for DIPMP, IPMMP and MTMP. When the sample volume exceeded 10 ml, the C₁₈ sorbent was most effective for all agents. The amount of sorbent required to retain the compounds depended on the sample volume. The investigation showed that cartridges containing 200 mg, 500 mg and 1,000 mg should be used for sample volumes of 50 ml, 100 ml and 500 ml respectively. If the sample contains much organic matter, the amount of sorbent should be increased.

After the aqueous sample has been passed through the cartridge, and the chemical agents adsorbed onto the polymer, the sorbent may be washed with water to remove highly polar impurities. If necessary, the sorbent can also be washed with hexane to remove organic impurities. No loss of agents was observed when water was used as the washing solvent and less than 15 per cent loss was observed with hexane.

Investigation of different solvents showed that methanol and acetone were most effective in removing the selected chemical warfare agents and related compounds from the C₁₈ cartridges. Since most of the chemical warfare agents are unstable with respect to nucleophilic attack by alcohols, acetone is preferred. The experiments showed further that the optimal volumes of solvent needed to remove the compounds from the sorbent were 300 µl, 500 µl, 800 µl and 1,500 µl for cartridges containing 100 mg, 200 mg, 500 mg and 1,000 mg C₁₈ sorbent respectively. Larger volumes may be used, but this would result in lower concentrations in the eluate owing to dilution of the compounds. When optimal volumes were used, the proportion removed was 90 per cent for tabun, soman and MTMP, and 30 per cent for mustard gas and VX. In the case of sarin, the proportion removed varied from 60 per cent for the 200 mg sorbent to 90 per cent for the 1,000 mg sorbent.

The investigation of different storage temperatures showed that all compounds were rapidly degraded on cartridges stored at room temperature (+21°C). For tabun and sarin less than 5 per cent was recovered after two days' storage. For soman, VX and mustard gas the rate of degradation was slower but the proportions recovered had dropped to less than 10 per cent after five days. Thus, if the cartridges need to be stored for more than seven days a freezer should be used for all the compounds investigated. For shorter storage times a refrigerator may be used. The samples should also be kept cool during transport to the laboratory and a box filled with dry ice or other cooling devices such as an insulated bag with cooling elements may be used. The need for such precautions is time dependent and should especially be used if the transport takes more than 24 hours.

3. METHOD VALIDATION

The optimal procedure for sample preparation was applied in the isolation of the nerve agents tabun, sarin, soman and VX, the blister agents mustard gas and the sarin impurity DIPMP from different sample materials. The materials used were water, soil, sand, grass, paper, silicone, neoprene, butyl rubber, a polyurethane foam with activated charcoal, and a polyester/cotton fabric. Of these 10 materials the last five are used in protective clothing. The yield for all the agents, except VX, was established for both 1 mg and 1 µg added to 2 g of soil, sand, grass, paper, neoprene and butyl rubber and to 1 g of silicone, polyurethane foam with activated charcoal and polyester/cotton fabric. The yields were clearly dependent on the sample material and on the chemical warfare agent. More than 50 per cent of tabun, soman and DIPMP and more than 30 per cent of sarin, VX and mustard gas was recovered from most of the materials contaminated with 1 mg of the respective chemical warfare agent. From samples contaminated with 1 µg, the yields were lower, but values above 10 per cent were observed for all but a few combinations of sample material and chemical agent. The recovered amounts of chemical warfare agents were higher from water, sand and paper than from grass, butyl rubber and polyurethane foam with activated charcoal.

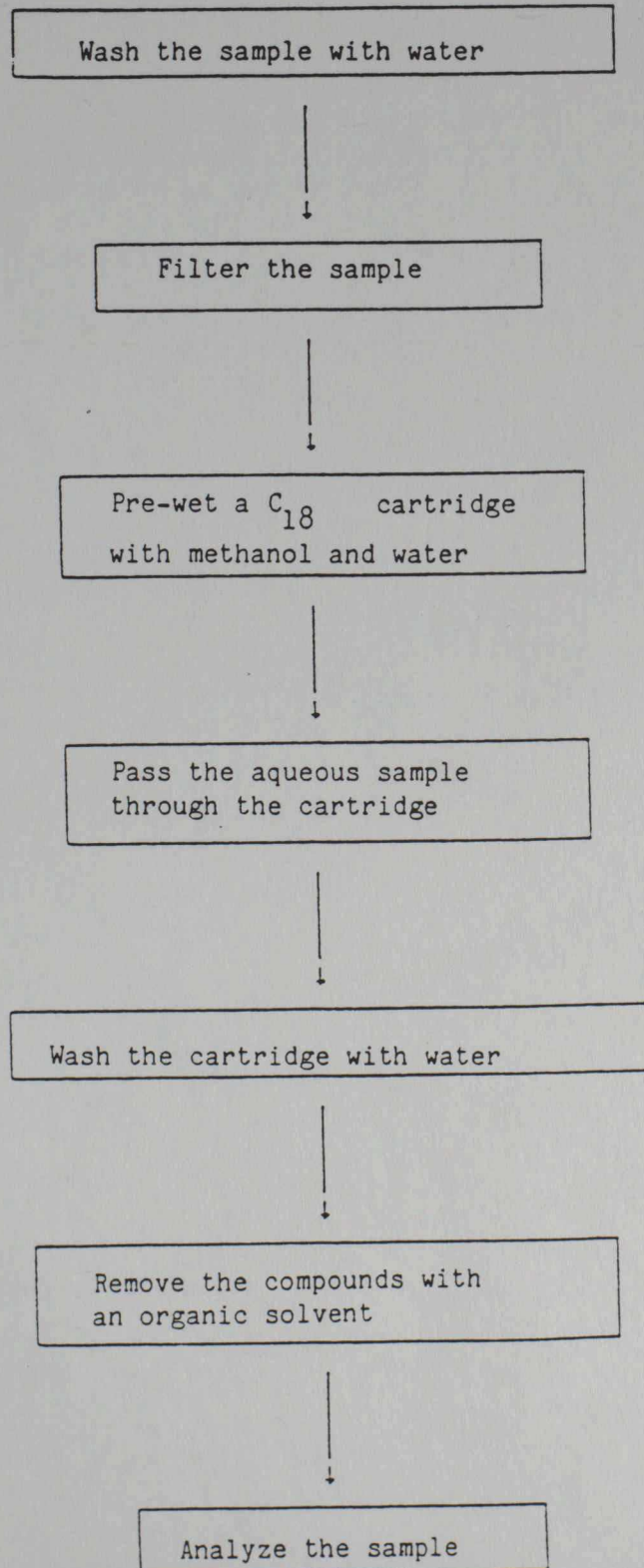
4. CONCLUSIONS

The investigations carried out in 1989-1990 have resulted in an optimal sorbent extraction procedure for isolating chemical warfare agents and related compounds from aqueous solutions. The procedure has been made as general as possible for use in screening samples suspected of being contaminated with chemical warfare agents. Non-polar sorbents were shown to be best suited for sorption of chemical warfare agents and related compounds, and the octadecylsilane (C₁₈) sorbent has proved to be the most efficient of such sorbents. The amount of sorbent needed depends on the volume of the sample. After application of the sample, the sorbent may be washed with water to remove most of the polar impurities. Before analysis the chemical warfare agents are removed from the polymer sorbent using acetone as the preferred organic solvent.

A flow chart showing the complete sample preparation procedure for isolating selected chemical warfare agents and related agents from different sample materials is shown in an annex to this document. The sorbent extraction technique used in this investigation has been successfully applied in the verification of chemical warfare agents obtained from water, grass, soil, sand, paper, silicone, butyl rubber, neoprene, a polyurethane foam with activated charcoal, and a polyester/cotton fabric.

ANNEX

FLOW CHART SHOWING THE COMPLETE SAMPLE PREPARATION PROCEDURE FOR ISOLATION OF CHEMICAL WARFARE AGENTS FROM ENVIRONMENTAL SAMPLES



CONFERENCE ON DISARMAMENT

CD/1009
5 July 1990

Original: ENGLISH

LETTER DATED 4 JULY 1990 FROM THE PERMANENT REPRESENTATIVE OF FINLAND ADDRESSED TO THE SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT TRANSMITTING THE LATEST VOLUME OF THE BLUE BOOK SERIES ON VERIFICATION OF CHEMICAL DISARMAMENT ENTITLED "INTERNATIONAL INTERLABORATORY COMPARISON (ROUND-ROBIN) TEST, F.1 TESTING OF EXISTING PROCEDURES" 1/

I have the honour to enclose herewith the latest volume of the Blue Book series on verification of chemical disarmament entitled "International Interlaboratory Comparison (round-robin) Test, F.1 Testing of Existing Procedures".

The previous 14 volumes of the Blue Book series have been research reports of the Finnish CW Verification Project. The present report describes the results of an experiment with participation from 10 different countries and co-ordinated by Finland. The presentation of this report would not have been possible without close co-operation by all participants throughout the experiment and it should indeed be considered as a joint contribution of all 10 laboratories.

I would kindly request you to circulate the report as an official document of the Conference on Disarmament.

I also wish to inform you that Dr. Marjatta Rautio, Director of the Finnish Research Project on the Verification of Chemical Disarmament, will introduce the report on behalf of the participating laboratories at the plenary meeting of the Conference on Disarmament on Thursday, 5 July 1990.

(Signed) Antti Hynninen
Ambassador
Permanent Representative
of Finland

1/ A limited distribution of this document in English only has been made to the members of the Conference on Disarmament. Additional copies are available from the Permanent Mission of Finland at Geneva.

CONFERENCE ON DISARMAMENT

CD/1012
CD/CW/WP.304
11 July 1990

Original: ENGLISH

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND

Verification of the Chemical Weapons Convention: Practice
challenge inspections of Government facilities: Analysis
of results

Introduction

1. In CD/921 the United Kingdom described two Practice challenge Inspections (PCIs) which it had carried out at military facilities and the interim conclusions which had been drawn. The United Kingdom indicated that the PCI programme would continue, and that a further paper would be tabled on the outcome. Since CD/921 was presented a further four exercises have been held. This paper records the outcome of the programme and the conclusions the United Kingdom has drawn.

The Programme

2. The PCI programme addressed a range of sites representative of fundamental United Kingdom national security activities and equipment in order to assess the impact, procedures, and conduct of challenge inspection at different types of facilities. A brief description of the programme is at Annex. The following paragraphs address the main issues raised by the series of exercises, the lessons learned and the United Kingdom's conclusions.

Security

3. A number of different aspects of security were considered.

(a) Physical Security

The implications of challenge inspection for physical security at challenged sites were a common concern at all the sites visited. Certain intelligence advantages accrue from gaining physical access to a site beyond those available from other sources.

(b) Presence and location of sensitive stores

There was concern that intrusive on site inspection would reveal to the Inspection Team and Challenging State Observer the presence and location of sensitive stores. For instance the location of stores for nuclear weapons in the UK is classified and it is UK policy to neither confirm nor deny their presence at a particular site.

(c) Stockholding, Throughput and Capacity

At the site of PCI3 information concerning stockholdings, and at the PCI 4 site, throughput and capacity was highly classified. There was concern that this would be compromised during a challenge inspection.

(d) Weapons design information

A particular concern has been that the demonstration of compliance should not result in the Inspection Team gaining access to classified weapon design details, especially nuclear weapon design information. In the latter case there is also a possible issue relating to obligations under the 1968 Nuclear Non-Proliferation Treaty not in any way to assist non-nuclear weapons states to manufacture or acquire nuclear weapons. On the other hand the Inspection Team must have sufficient access and information to be able to satisfy themselves that any weapons they find in the course of an inspection are not chemical weapons.

4. In order to meet these concerns the UK's PCIs were conducted under varying degrees of managed access.

Managed Access

5. The UK identified a wide range of managed access techniques for dealing with the security concerns about sensitive buildings, rooms, equipment, processes and weapons systems, while still enabling a good deal of information to be made available to help the inspectors to determine whether the area was concerned with undeclared activities relevant to the Convention. The techniques might be divided into routine managed access measures for use at

most sites, and exceptional measures for sites where particularly sensitive national security concerns were at stake.

(a) Routine Measures

(i) A number of simple precautionary measures are available to protect security at many sites. These include the implementation of a previously formulated and tested inspection plan for the the removal of notices charts and displays, the locking away of all papers, and the logging off of computer systems any of which might disclose sensitive information not relevant to the inspection, and the locking away of sensitive equipment in workshops laboratories and test areas.

(ii) The use of shrouding is another important option. The key principle here is to ensure that the "stay out" zone is kept to the minimum size possible. Whenever possible the Inspectors should be allowed to touch through the shroud and use instruments to sample the air inside and around it. The impact of shrouding on an inspection team will vary from case to case. A small shrouded object in an otherwise open electronic laboratory or drawing office is less likely to arouse inspectors' suspicions than a large shrouded area in an ammunition storage facility.

The UK firmly believes however from its experiences on the PCI programme that good and sensible shrouding is an invaluable technique to meet the Challenged State's national security concerns while allowing sufficient access to meet the Inspection Team's needs. It is better to be able to visit a room where objects are shrouded than to be refused access at all.

(iii) Other technique involve the use of instrumentation. These could include the use of x-ray equipment for example to demonstrate whether ammunition has a solid or liquid fill. The UK has also commissioned a feasibility study into neutron activation analysis as a non-intrusive alternative to x-ray; another possible technique is gamma ray spectrometry to establish the presence or absence of nuclear materials. Gravity meters or other geophysical survey instruments could also be useful in detecting concealed underground storage facilities.

(iv) The use of sampling, both by itself and as a back up to the use of instrumentation is another means of verifying compliance both generally and in the absence of complete access. Sampling techniques are discussed further below.

(b) Exceptional Measures

(i) In sensitive sites where the concerns over physical access described at para 3(a) above are particularly acute, the UK has identified a number of measures to alleviate these concerns, albeit at some operational and/or financial cost. These include shrouding of defensive positions, alarms, sensors etc and deliberately changing normal security practices.

(ii) In order to prevent compromise of highly classified information about stockholdings, throughput and capacity - a particular concern at nuclear weapons facilities - which could be deduced by an Inspection Team if allowed access to all the relevant buildings on a particular site, the UK developed a system of Random Selective Access whereby only a given percentage of buildings within a site or part of a site, and/or a given percentage of rooms within a building and/or items within a room were available for inspection at the Inspection Team's choice. During the 4 inspections where the system was applied the percentage used was normally 20% although it need not be set at this level. The system can be applied by the Challenged State in a variety of ways:

- One method would be to let the Inspection Team negotiate access to buildings or parts thereof on a step by step basis until they are satisfied or until they have reached the [x]% limit.

- An alternative would be to state from the outset that within the challenged site or parts thereof only [x]% access would be allowed at the Inspection Team's choice.

- There is no clear cut balance of advantage between the two approaches. The disadvantage of the former is that the Inspectors have to negotiate each extra degree of access which if protracted can generate needless suspicion. The disadvantage of the latter is that more access might be given than would in normal circumstances be necessary to satisfy the Inspection Team.

- The system can also be applied by the Challenged State in different ways. Sites can be divided into areas, buildings into

Zones which do not correspond exactly to whole buildings and rooms respectively (eg a room may be divided into several zones).

- Alternatively, the system can be applied in a more straightforward way to buildings within a site or part of a site, and rooms within a building.

- Finally Random Selective Access can be applied on either a truly random or a selective basis. Under the former system, the Inspectors could be invited to simply pick a card at random with a building, room or zone number on it; under the latter, the Inspectors could be allowed to select buildings, rooms or zones from an initial tour or from a site or building plan with some prior indication of their function. The option represents a stronger deterrent since the inspectors would have the right to choose which building or item to inspect.

- The UK experience has been that Random Selective Access as part of an overall managed access scheme is a major

contribution to meeting security concerns while at the same time giving an inspection team sufficient access at their choice to enable them to conclude with a high degree of confidence that the location or item subject to managed access was unrelated to chemical weapons.

6. It has been the UK experience from its 6 PCIs that within challenged sites certain rooms, buildings or areas which are obviously not engaged in chemical weapons activity (eg drawing offices, computer rooms etc), only require a brief inspection to satisfy an Inspection Team. Moreover we have often found that the areas of greatest concern to a challenged state from a security viewpoint are of little interest to a CW Inspection Team. On the other hand within certain sites further clarification is required as to whether managed access might have to include denial of access to a very limited number of highly sensitive buildings.

Notice of Inspection

7. It is clear that even in as short a period as 48 hours considerable quantities of ammunition could be shipped out of a storage facility; the question of clean-up times in chemical facilities is also relevant in this context. On the other hand the challenged state will require a minimum period of time, which

from our experience we estimate could be up to 48 hours, to prepare to receive the Inspection Team, including the provision of transport and communications, and the assembly of the appropriate personnel, and the implementation of the challenged facility's reception plan. One solution would be to allow for an advance party to arrive within [] hours of a challenge being issued to seal the facility and monitor movements in and out, although there could be practical difficulties to overcome. The alternative is to allow the Inspection Team to arrive earlier than 48 hours after the challenge is issued. At particularly sensitive facilities where considerable preparation is required this could mean that the Inspection Team would have to be kept out of certain buildings pending the completion of preparations. The inspectors could however be allowed to seal such buildings until entry was permissible.

Definition of Challenged Facility

8. The effectiveness of an inspection will to some extent depend on the specificity of the Challenge. Our experience shows that very accurate and specific definition of the challenged facility is necessary if confusion and controversy at the outset of the inspection is to be avoided. The challenged facility should be clearly defined by a combination of geographic co-ordinates, facility name and/or description, and where possible a local map showing the boundaries of the area under challenge. The onus is on the challenging state to ensure the

accuracy of this definition. Clarification and agreement of the geographical limits of the challenge between representatives of the Challenged State, the Inspection Team and the Challenging State Observer will be an essential early task at the Point of Entry. While it will be at the discretion of the Challenged facility to draw attention to any "lodger" units or contractor-controlled areas within the area under challenge, the onus will be on the host facility to arrange access.

Size and Composition of Inspection Team

9. The size and composition of the Inspection Team needs to be tailored to the size and type of facility under challenge. Our experience has shown that a minimum of 4 Inspectors is necessary at even the smallest sites. On larger sites however it would be difficult for a team of this size to carry out all their inspection duties, even if they exercise their right to split into two sub-teams. The UK believes the Inspection Team should be accompanied by sufficient support staff to seal the site, monitor movements in and out on a 24 hour basis, assist in the collection and monitoring and analysis of samples both on and off site (see para 25-32 below) and provide general administrative services to the Inspection Team.

10. The resource implications of a larger support staff will need further examination.

11. The Inspection Team will need to include appropriate expertise for the type of facility under challenge and the nature of the challenge, including knowledge of all aspects of production, weaponisation, testing and storage of Chemical weapons. They will need to be able to judge whether visual and other evidence is consistent with the explanations offered for the nature of activities at the site.

Securing the Site

12. From our exercises we have found that sealing the site at a large facility with many access points poses its own problems. Where the site is completely enclosed by a security fence, this might best be achieved by sealing all but the main gate with seals which have inherent integrity but are frangible for emergency access. Seals would need to be checked regularly for signs of tampering. The main gate could then be left open with an Inspection Team security assistant left behind to monitor and check all transport in and out.

13. At sites which are not totally secured by fencing there is clearly little point in attempting to completely seal the site. However movements in and out could still be monitored, and the Inspection Team could seal secure areas within the site or buildings which particularly aroused their suspicions.

Reception Plan

14. The PCI programme has demonstrated the clear advantage in all facilities likely to be subject to challenge inspection of preparing and exercising beforehand a reception plan including the preparation of shrouding, managed access strategies, and fallback positions for instances where the Inspection Team are not convinced by the initial degree of access. Such decisions should not be left to the day of a real inspection as this can cause major problems and delays which only arouse Inspectors' suspicions. Our experience has shown that in the majority of cases the best approach would be to cease normal operations/work and send home any non-essential staff. This facilitates the Inspection Team's task and enables all the efforts of the challenged facility's senior staff to be devoted to the inspection. Such an approach does however have resource and cost implications which are at present unquantifiable but which could well be substantial.

Introductory Briefings

15. The UK has found that an introductory briefing on the work and lay out of the challenged facility preferably over a site plan or model can be of great benefit to the Inspection Team,

both in helping them familiarise themselves with the lay out of the site and in ascertaining the type of activity and facilities to expect to see in the course of their inspection. This introductory briefing should also include any safety briefing which the Challenged State wishes or in the case of the UK is obliged by Health and Safety Legislation to provide.

Initial Tour of Challenged Facility

16. Our experience has shown that an initial tour of the challenged facility after the introductory briefing is essential to the Inspection Team both in orientating themselves on site and in formulating their initial inspection plan. On larger sites where safety regulations permit, a helicopter overflight provides the best means of covering the ground quickly and has the advantage of giving the inspectors an overview.

Inspection Plan

17. After an initial tour of the challenged site the Inspection Team will need to consider their inspection plan. On some of our PCIs the challenged facility proposed an inspection plan to the Inspection Team on the basis that if the Inspectors followed the plan offered to them, this would facilitate the inspection by following a logical route through the facility and by enabling the "Home Team" to ensure that staff with appropriate expertise

to answer inspectors' questions, and with the necessary keys to buildings were on hand. However, the Inspection Team may prefer to decline such offers. An important element in the deterrent effect of the challenge inspection regime arises from the uncertainty for the challenged state as to what the inspectors will choose to examine, and in how much detail. On larger sites our experience has shown that a modular approach - inspecting clusters of buildings on the same part of the site at the same time - has advantages over totally random selection of buildings at different parts of the site by avoiding the loss of too much time in travelling from one end of a site to another.

Transport

18. The UK has concluded that from its exercises that the Challenged State should provide sufficient transport for the Inspection Team, Sampling Team and support staff together with their equipment. Adequate provision should also be made for the Inspection Team dividing into two sub-teams. Our experience is that at larger sites, where safety regulations permit, a helicopter would be extremely useful to expedite the inspection.

Communications

19. In addition to providing adequate communications for the Inspection Team to report to the Technical Secretariat and the

Challenging State Observer to his embassy, we have also found that the Challenged State should provide effective communications - preferably portable two-way radios - to enable Inspection sub-teams to communicate with each other if the Inspection Team divides. UK experience also suggests that a Central Control room monitoring the movements of the inspection party around the site, and in communication with the "Home Team" leader and his deputy (for when the Inspection Team divides) is essential.

Sampling

20. The UK conducted a full sampling exercise in order to assess the likely impact of extensive sampling on the conduct of an inspection, the management task for the Inspection Team in directing and overseeing the activities of the samplers, and the logistics and practicalities of sampling during a challenge inspection.

21. Real time sampling had a marked effect on the inspection. It significantly affected progress especially in the early stages while the relationship between the Inspection Team and Sampling Team was established. For the Home Team the major impact was in terms of additional logistic problems, notably the need to provide additional transport, personnel to accompanying the samplers, and communications.

22. Our experience suggested that the Inspection Team should not wait for the samplers to carry out their sampling before moving on to new areas of the site. They should instead leave instructions as to the area they would like to have sampled, and the types of material they might be looking for. It will also be essential to make available a lockable and sealable store room for the holding of samples ammunition etc, prior to their analysis.

23. In the case of ammunition a variety of techniques are available to test for sampling purposes. If x-ray is not permitted for security reasons such techniques include the use of cutting charges to open the munition for sampling, incineration and demolition. It is the UK's experience that the use of cutting charges followed by vapour and wipe samples is the most advantageous method of verifying munition contents.

24. In order to save time on the inspection the pre-labelling of sample containers and the use of pre-printed sample, log sheets is essential. These should be water-proof. Tamper proof seals will be essential for samples use not accompanied by Inspectors.

25. In the UK's experience each sampling sub-team should as a minimum comprise two samplers, a record keeper and a fourth member to fetch and carry and guard items where necessary.

26. In the course of a two day PCI a total of 66 samples were taken. Duplicates were provided to the challenged state representatives for verification purposes. It was estimated that it would take a single analyst 7-10 weeks to analyse the samples taken. However in a real challenge inspection it would be desirable to analyse at least some of the samples overnight in order to have the results available to the Inspection Team for the next day.

27. Particular problems could arise at facilities which legitimately handle radioactive material, primarily from the safety/health physics concerns of collecting, packaging and moving samples.

Seals

28. The Inspection Team will require a variety of seals to assist them in their task. These will include seals for securing the site (see para 18 above), seals on samples containers and tags to mark items selected for sampling (eg munitions). All should be tamper proof.

Equipment

29. The UK's PCI experience suggests that it will be essential to have an agreed list of equipment which the Technical Secretariat shall make available for an Inspection Team. The Challenged State must have the right to inspect any equipment on arrival of the Inspection Team at the Point of Entry. This inspection will be facilitated by the Inspection Team presenting type approval certificates from the Technical Secretariat to authenticate the equipment.

Photography

30. Clearly defined and consistent rules will be required for the use of photography during an inspection. In the UK's experience photographic equipment should be provided and operated by the "Home Team" at the request of the Inspection Team. We have found that the ideal practice is to provide two instant Polaroid photos - one for the "Home Team", one for the Inspection Team followed by a 35mm photograph to give better definition. The use of battery operated flash equipment needs to be in compliance with any safety regulations, eg in explosives storage facilities.

Safety

31. It will be essential that the Inspection Team comply at all times with the safety regulations in force at the challenged facility, and, in the event of an emergency, follow the standard emergency procedures and instructions by representatives of the challenged site.

Role of Challenging State Observer

32. The role of the Challenging State Observer is important especially in the early stages of an inspection. Our work has shown that further clarification is required, particularly as regards his rights and status, and his relationship with the Inspection Team.

Conclusions

33. The extensive practical work the United Kingdom has undertaken involving a series of practice challenge inspections at Government controlled facilities has enabled a number of conclusions to be drawn on the concept, conduct and implications of challenge as a verification instrument.

(i) The extent and thoroughness of Inspection Team activities achievable at even the largest UK sites, coupled with the degree of access even the most sensitive

facilities have been able to provide, suggests that Challenge inspection should be a powerful means both of assuring compliance and deterring contravention or circumvention of the Convention.

(ii) There are no UK sites so sensitive from a national security viewpoint that we could not allow some form of access within the site, appropriately managed, to an international inspection team under the provisions on Challenge inspection of a Chemical Weapons Convention. There is a wide variety of managed access techniques available to minimise the compromise of sensitive and classified information unrelated to CW even at the most sensitive sites.

(iii) It is clear that detailed national guidance will be required for all sites on the reception of a challenge inspection. At sensitive sites inspections could only be accepted under strictly managed access, which might have to include extensive shrouding, the locking away of sensitive equipment and components and the removal of sensitive notices and displays. At most sites an inspection would be most effectively managed by closing down all non-essential normal activity to facilitate management of the inspection. This has inevitable resource implications both financial and manpower which cannot be quantified at this stage but which at certain sites are likely to be substantial.

(iv) Even after all the managed access techniques described in this paper have been applied physical access to a sensitive site will inevitably mean that the inspectors will discover some information unrelated to C which the host country might prefer to shield. The extent and importance of this will vary from site to site. The factors need however to be reviewed in the context of the overall gains to a state's national security from more effective assurance of compliance with the CW Convention following from such access.

(v) The United Kingdom has concluded that at a wide range of sites comprehensive access can readily be given to an Inspection Team. Even at sites of importance to national security managed access techniques could allow sufficient access to enable the inspectors to fulfil their task effectively. Within a small number of especially sensitive sites the techniques of managed access would need to be more rigorously employed, including the possible need to deny access to a very limited number of highly sensitive buildings. We cannot of course predict on the basis of this programme of practice challenge inspections at Government controlled facilities that managed access will enable inspectors to fulfil their task in all conceivable cases. But on the basis of our experience our conclusion is that difficulties need arise very rarely, if at all, if the host state uses the full range of managed access techniques.

ANNEX

DESCRIPTION OF UK'S PRACTICE CHALLENGE INSPECTIONS

1. The six PCIs were as follows:

<u>PCI</u>	<u>TYPE OF FACILITY</u>	<u>DATE</u>
1	Army Conventional Ammunition Storage	October 1988
2	Navy Conventional Ammunition Storage	March 1989
3	RAF Operational Base Storing Nuclear Weapons	September 1989
4	Nuclear Weapons research and development/ component manufacture	February 1990
5	Conventional Ammunition Proof and Experimental/Range facilities	March 1990
6	Sensitive Communications Centre	April 1990

In addition the UK PCI team made visits to a number of other facilities to talk through the implications of challenge inspection. These included a command and control facility, research and development facilities, a nuclear missile processing facility, and civil nuclear processing and research facilities.

2. The United Kingdom's first two Practice Challenge Inspections (PCIs) were described in the Annex to CD 921. The following paragraphs describe PCIs 3-6.

PCI 3

3. The third PCI was held between 11 and 12 September 1989 at an RAF base. In addition to a standard explosive storage area, general administration and engineering support buildings, aircraft hangars and hardened aircraft shelters, the base contains a special storage area (SSA) which can house nuclear weapons. In addition to the general aims of the PCI programme, the specific objective of this exercise was to test the implications of intrusive on site inspection at a very sensitive facility and the extent to which any compromise of security could be minimised through preparatory measures by the "Home" Team.

PCI 4

4. The fourth PCI was held between 20 and 22 February 1990 at a site engaged in the design, development and production of components for the UK's nuclear weapons programme. The site covers some 650 acres and contains over 900 buildings. In addition to the obvious national security considerations, the UK has to comply with the 1968 Non-Proliferation Treaty on Nuclear Weapons (NPT) which requires the UK not to assist non-nuclear weapons states to manufacture or acquire nuclear weapons.

PCI 5

5. The fifth PCI was held between 27-28 March 1990 at three

contiguous sites. Total acreage within the area comprising the sites was 7,500 acres, with a further 35,000 acres of sands. The main roles of the facilities were (a) the testing and proofing of manufacturers' conventional munitions and ammunition for all three armed services during development and production; (b) the testing under controlled conditions of explosive-filled stores in service environments; (c) theoretical and experimental studies in support of both the UK nuclear and conventional weapons R&D programmes. A particular focus of this PCI was on sampling procedures at the extensive range facilities.

PCI 6

6. The sixth PCI was held on 26 April at a facility engaged in the research and development of secure communications. It is a small site comprising some 15 buildings including a laboratory complex.

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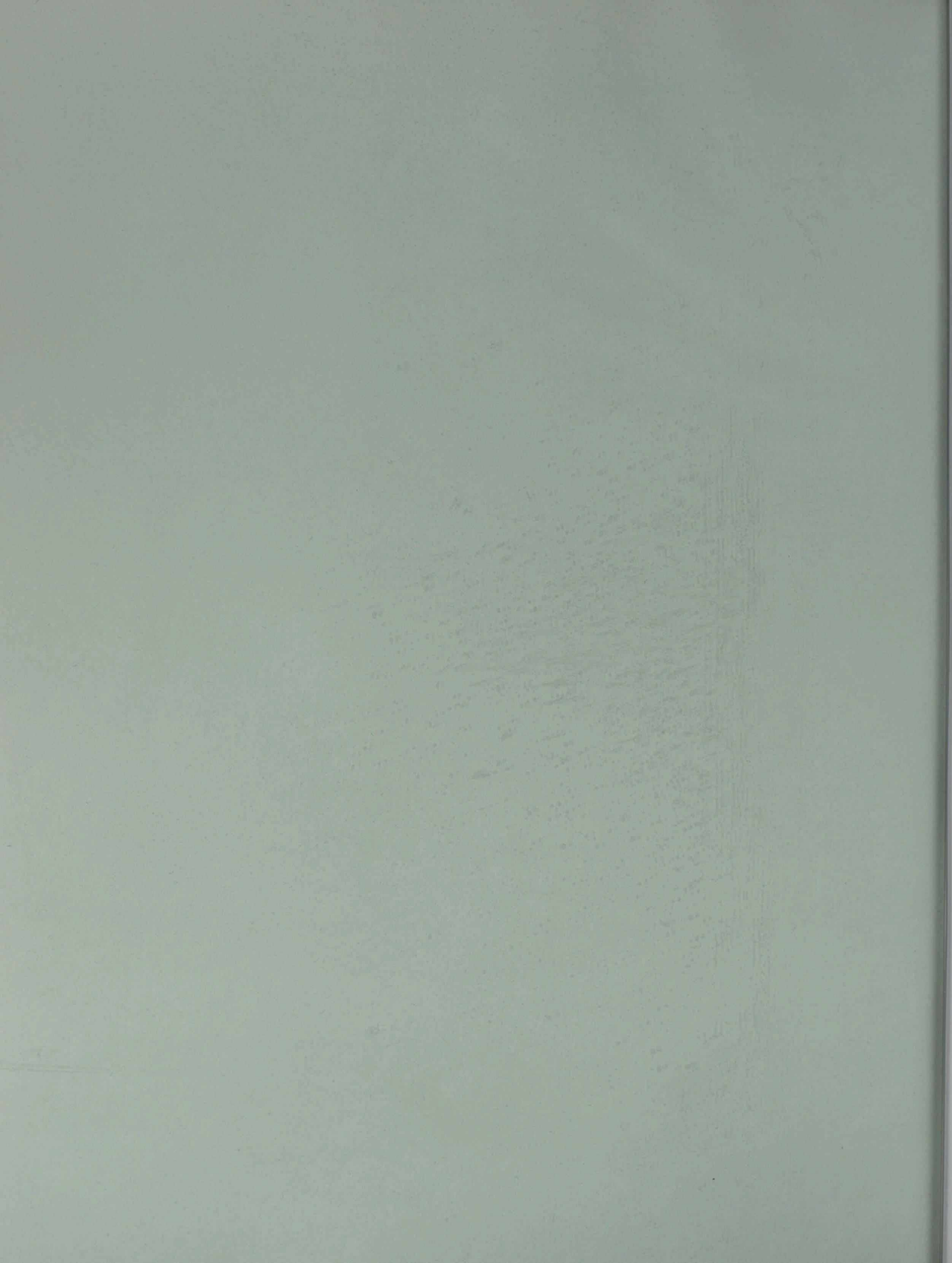
10/10/52

contiguous sites. Total acreage within the area comprising the
 sites was 7,500 acres, with a further 15,000 acres of lands. The
 main roles of the facilities were (a) the testing and proofing of
 conventional explosives, (b) the testing and proofing of
 conventional explosives and ammunition for all
 three armed services during development and production; (c) the
 testing under controlled conditions of explosive-filled stores in
 service environments; (d) theoretical and experimental studies in
 support of both the nuclear and conventional weapons and
 programmes; (e) the testing and proofing of nuclear weapons
 components; (f) the testing and proofing of nuclear weapons
 components.

PC-8

The above facilities were on 17 April 1952 a facility engaged in
 the research and development of nuclear components. It is a
 well equipped laboratory including a laboratory
 for the testing and proofing of nuclear weapons components.
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10/10/52



CONFERENCE ON DISARMAMENT

CD/1014/Rev.1
CD/CW/WP.305/Rev.1
27 July 1990

Original: ENGLISH

TABLE 1

National data concerning production, stockpiles, and disposal of chemical weapons

1. Chemical name: carbonyl dichloride

Common or trade name: phosgene

Name	Structural formula	Type of data
ROMANIA		
<u>Data relevant to the Chemical Weapons Convention</u>		
<p>In the context of the negotiations on the Chemical Weapons Convention, in order to contribute to the progress of these efforts, Romania is presenting below data relevant to the future Convention, according to the proposals contained in document CD/828, dated 12 April 1988.</p>		
<p>These data reflect the situation in Romania during the first half of 1990 and are relevant to the last three years. Data have been provided on a voluntary basis by respective Romanian bodies and institutions.</p>		
<p>The chemicals refer to those listed on Schedules 1, 2 and 3 of document CD/961 dated 1 February 1990.</p>		
1. Chemical name: carbonyl dichloride		
Common name: phosgene		
Structural formula: Cl-CO-Cl		
Chemical Abstracts Service Registry Number: 75-78-2		
The total amount:		
- produced 3-5,000 t/y		
- consumed 3-5,000 t/y		
- imported - nil		
- exported - nil		
Existing plants: none applicable		

- Petrochemical Works Pitesti, located in Pitesti, 137 km from Bucharest, producing 3-5,000 t/y. The plant is scheduled for dismantling.

- Synthetic Fibres and Textile Complex Giurgiu, located in Giurgiu, 110 km from Bucharest, producing 3-5,000 t/y.

- Chemical Works Arad, located in Arad, 210 km from Bucharest, producing 3-5,000 t/y. Mainly for the production of cyanuric chloride for pesticides, production of blocking agents.

TABLE 1

Type of data	Response	Note
1. Presence of CW on own territory	No CW are located in the territory of Romania	
Possession of CW on territory of another State	No	
2. Aggregate number of facilities for the production and storage of CW	None	
Aggregate number of facilities for the production, processing and consumption of chemicals on Schedules 1, 2 and 3	11	x
3. Types and names of CW agents	Romania does not produce or possess CW	
Types of CW munitions stored; CW agents stored in bulk	None	
Number and names of chemicals on Schedules 1, 2 and 3 produced in the chemical industry	7	x
4. Plans and methods for the destruction of CW including the number of facilities and the anticipated length of their operation during the 10-year destruction period	Not applicable	

x Detailed information listed in table 2.

TABLE 2

National data concerning production, consumption, export and import of chemical products listed on Schedule 3

1. Chemical name: carbonyl dichloride

Common or trade name: phosgene

Structural formula: $O=CCl_2$

Chemical Abstracts Service Registry Number: (75-44-5)

The total amount:

- produced 3-4,000 t/y
- consumed 3-4,000 t/y
- imported - nil
- exported - nil

Existing plant - at Chemical Works Rîmnicu Vîlcea, located in Rîmnicu Vîlcea, 1, bulevardul Chimistilor.

Normal capacity: 4,000 t/y

Destination: production of pesticides

2. Chemical name: cyanogen chloride

Common name: chlorocyan

Structural formula: $Cl-C-N$

Chemical Abstracts Service Registry Number: (506-77-4)

The total amount:

- produced 3-5,000 t/y
- consumed 3-5,000 t/y
- imported - nil
- exported - nil

Existing plants:

- Petrochemical Works Pitesti, located in Pitesti, 127 bulevardul Petrochimistilor, Arges district. Nominal capacity 4,000 t/y. The plant is scheduled for dismantling.
- Synthetic Fibres and Yarns Complex Savinesti, located in Savinesti, 1, uzinei Street, Neamt district. Nominal capacity 3,000 t/y.
- Chemical Works Borzesti, located in Borzesti, 3, Cauciucului Street, Bacau district. Nominal capacity 15,000 t/y. Partially commissioned.

Uses: production of cyanuryl chloride for pesticides, production of detergents, dyes, bleaching agents.

3. Chemical name: hydrogen cyanide

Common name: hydrocyanic acid

Structural formula: H-CN

Chemical Abstracts Service Registry Number: (74-90-8)

The total amount:

- produced 7-9,000 t/y
- consumed 7-9,000 t/y
- imported - nil
- exported - nil

Existing plants:

- Petrochemical Works Pitesti - nominal capacity 5,500 t/y
- Synthetic Fibres and Yarns Complex Săvinești - nominal capacity 3,160 t/y
- Chemical Works Borzești nominal capacity 11,650 t/y, partially commissioned
- Carbosin Factory Copșa Mică, located in Copșa Mică, 1, Uzinei Street, Sibiu district. Nominal capacity 3,000 t/y. The plant is scheduled for dismantling.

Uses: production of chlorocyan and cyanides.

4. Chemical name: phosphorus oxychloride

Common name: phosphonyl chloride

Structural formula: P(O)Cl₃

Chemical Abstracts Service Registry Number: (10025-87-3)

The total amount:

- produced 50-80 t/y
- consumed 50-80 t/y
- imported - nil
- exported - nil

Existing plant - at chemical Works Borzești - nominal capacity 100 t/y.

Uses: organic synthesis.

5. Chemical name: Phosphorus trichloride

Common name: Phosphorus trichloride

Structural formula: PCl₃

Chemical Abstracts Service Registry Number: (7719-12-2)

The total amount:

- produced 1,000-1,500 t/y
- consumed 1,000-1,500 t/y
- imported - nil
- exported - nil

Existing plant - at Chemical Works Borzești. Nominal capacity 2,000 t/y.

Uses: chlorinating agent in organic synthesis.

6. Chemical: Phosphorus pentachloride

Common name: phosphorus pentachloride

Structural formula: PCl_5

Chemical Abstracts Service Registry Number: (10026-13-8)

The total amount:

- produced 20-50 t/y
- consumed 20-50 t/y
- imported - nil
- exported - nil

Existing plant - at Chemical Works Borzești. Nominal capacity 100 t/y.

Uses: intermediate for production of pesticides and lubricating oils.

7. Chemical name: Dimethyl hydrogen - phosphite

Common name: Dimethylphosphite

Structural formula: $CH_3OP-OH \rightarrow$

$$\begin{array}{c} CH_3O \quad \quad O \\ \quad \quad \quad \diagdown \quad \diagup \\ \quad \quad \quad P \\ \quad \quad \quad \diagup \quad \diagdown \\ CH_3 \quad \quad \quad H \end{array}$$

Chemical Abstracts Service Registry Number: (868-85-9)

The total amount:

- produced 500-1,000 t/y
- consumed 500-1,000 t/y
- imported - nil
- exported - nil

Existing plant - at Chemical Works Borzești. Nominal capacity 1,300 t/y.

Uses: production of pesticides.

Chemical Abstracts Service (CAS) (1969-1970)

The total amount:

Produced 1,000-1,500 t/y
Consumed 1,000-1,500 t/y
Exported 1,000-1,500 t/y
Imported - nil

Existing plant - at Chemical Works (CWS) - Montreal capacity 1,500 t/y.

Uses: chlorination agent in organic synthesis.

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Existing plant - at Chemical Works (CWS) - Montreal capacity 1,500 t/y.

Uses: chlorination agent in organic synthesis and laboratory use.

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

Chemical name: Phosphorus pentachloride

The total amount:

Produced 1,000-1,500 t/y

Consumed 1,000-1,500 t/y

Exported 1,000-1,500 t/y

Imported - nil

Existing plant - at Chemical Works (CWS) - Montreal capacity 1,500 t/y.

Uses: production of phosphorus



CONFERENCE ON DISARMAMENT

CD/1017
19 July 1990

Original: ENGLISH

BULGARIA

Submission of data in connection with the Convention on the Prohibition of Chemical Weapons

Desirous of making its contribution to accelerating the negotiations, the People's Republic of Bulgaria submits the enclosed data in accordance with the USSR Memorandum on the multilateral data exchange in connection with the drafting of the Convention on the complete and effective prohibition of chemical weapons and their destruction, as well as working documents CD/828 and CD/984, submitted by the Federal Republic of Germany.

The data laid down in the following table is communicated by the Ministry of Defence, the Ministry of Industry and Technology, and the Ministry of Economics and Planning.

The thresholds for production and consumption are for Schedule 1: 100 grams/year, Schedule 2: 1 ton/year and Schedule 3: 30 tons/year.

BULGARIA

Type of data	Answer
1. Presence of CW on our territory	No
Possession of CW on the territory of another State	No
2. Aggregate number of facilities for production and storage of CW	Bulgaria does not produce or store CW
Aggregate number of facilities for production, processing and consumption of permitted chemicals in Schedules 1, 2 and 3 above thresholds indicated in this document	1
3. Types and names of CW agents produced	Not applicable
Types of CW munitions stored; CW agents in bulk	Not applicable
Names of chemicals in Schedules 1, 2 and 3 produced in the chemical industry	Hydrogen cyanide (74-90-8)
4. Plans and methods for the destruction of CW including the number of facilities and the anticipated length of their operation during the 10-year destruction period	Not applicable

CONFERENCE ON DISARMAMENT

Report on a Trial Challenge Inspection

1. INTRODUCTION

On 10 March 1960, the Kingdom of the Netherlands conducted a trial challenge inspection of the military aircraft of the Kingdom of the Netherlands. The inspection, carried out by the Ministry of Foreign Affairs and the Ministry of Defense in cooperation with the Netherlands Organization for Applied Scientific Research (TNO), was the first of its kind in the Netherlands.

It demonstrated that it is perfectly possible to carry out such an inspection with the help of modern technical means. Moreover, it also showed that all the participants were of high professional quality in such inspections, and that the inspection procedure, based on the Geneva Convention, should be further refined.

2. AIMS OF THE INSPECTION

The aim of the trial challenge inspection was to:

- A. To ascertain whether compliance with the Geneva Convention could be determined through a challenge inspection being devised.
- B. To gain practical experience in carrying out trial challenge inspections.
- C. To put the Geneva Convention to a practical test and to determine whether the Convention could be applied in practice.

THE NETHERLANDS

Report on a Trial Challenge Inspection

1. INTRODUCTION

On 27 March 1990, the Kingdom of the Netherlands conducted a national chemical weapons trial challenge inspection of a military airbase. The inspection, carried out jointly by the Ministries of Foreign Affairs and of Defence in collaboration with the Netherlands Organisation for Applied Scientific Research (TNO), was the first of its kind in the Netherlands.

It demonstrated that it is perfectly possible to carry out such an inspection with the help of managed access measures. Nevertheless, it also showed that all the participants were in need of more practice in such inspections, and that the inspection procedures, based on the Geneva Draft Convention, may require some further refinement.

2. AIMS OF THE INSPECTION

The aims of the trial challenge inspection were:

- A. To ascertain whether compliance with the Chemical Weapons Convention could be determined without sensitive information being divulged.
- B. To gain practical experience in carrying out trial challenge inspections.
- C. To put the Protocol on Inspection Procedures of the "Rolling Text" to the test under real and practical conditions.

3. THE FACILITY INSPECTED

The trial challenge inspection was carried out at a 400-hectare operational airbase belonging to the Royal Netherlands Air Force. A number of the base's facilities were located outside it; these included an ammunition dump, a mobilisation storage depot, a radio transmission station, and a storage depot for communications equipment.

On the base itself there are 18 ammunition bunkers and 32 aircraft hangars, an administrative area with offices and living quarters, and a technical area. The base has one main entrance and 19 other entrances. A railway track also runs through the base.

4. COMPOSITION OF THE TEAMS

A. The Inspection Team

In the light of the earlier experience of the Federal Republic of Germany, the Inspection Team was kept as small as possible. This was facilitated by the decision not to secure the site during the inspection (see 5C below) and not to have samples analysed on-site (see 5D below). It was considered necessary that the team should include at least:

- i. a chemical expert well acquainted with the CD negotiations;
- ii. chemical experts with the necessary training and equipment to take samples. In consultation with TNO, it was decided that in view of the size of the airbase, at least two such experts should be included in the team;
- iii. an ammunitions expert;
- iv. an NBC (nuclear, bacteriological and chemical protection) expert;

v. an infrastructure expert who, especially in instances of managed access, would be able to ascertain before entering the site whether the buildings and the layout of the site were suitable for the storage of chemical weapons. The inclusion of such an expert was also useful in order to comply with the requirement that the inspection be carried out in a number of increasingly intrusive stages.

The inclusion in the team of a doctor/pharmacist was also considered. But since the inspection was only a trial one and its results - namely that no chemical weapons would be found on the airbase - were known in advance, a doctor was not included in the team. In a real challenge inspection, inclusion in the inspection team of a doctor, military or otherwise, would certainly be worth considering.

B. The In-Country Escort

The In-Country Escort consisted of 3 persons from the Ministries of Foreign Affairs and of Defence.

Given the nature of the inspection, an arbiter and a co-arbiter were added to ensure that the trial inspection took place in accordance with correct procedures. They had the authority to settle differences of opinion where necessary and were not considered to be representatives of the Inspected State Party. The arbiter also assumed the role of the (Director-General of the) Technical Secretariat whenever necessary.

C. The Observer

In Geneva, there is as yet no clearly formulated concept of the role of the Observer representing the state that has requested an inspection. Some delegations consider that the Observer may be present throughout the inspection. Others believe that, while the Observer should be in the vicinity, he or she need only be informed of the progress of the inspection without being present at all stages of the inspection. Yet others believe apparently that the presence of an Observer at the inspection is not warranted at all.

The Netherlands is of the opinion that the presence of the Observer during a challenge inspection is absolutely indispensable and a prerequisite for the successful outcome of such an inspection.

In order to take full advantage of the role-play elements inherent in the trial inspection and to allow the rights and obligations of the Observer to become clear, it was decided that the Observer could attend all stages of the inspection, but with some restrictions regarding access granted. For an evaluation of the role of the Observer see section 6 F below.

5. PREPARATIONS FOR THE INSPECTION

A. The Inspection Protocol

The trial challenge inspection was carried out in accordance with an Inspection Protocol based on the Rolling Text of the Chemical Weapons Convention (CD/961 of 1 February 1990) with some changes to take into account the particularities of the trial inspection.

All the Protocol's procedures relating to the periods before arrival at and following departure from the Point of Entry were disregarded.

It was assumed that advance notice of the inspection had been given and that at the Point of Entry the site to be inspected would be communicated to the Inspected State Party. The "trial" thus commenced when the Inspection Team arrived at the Point of Entry and ended with their return there.

Procedures relating to events outside the in-country period practically all require the close involvement of the Technical Secretariat. For this reason, these procedures could not easily be simulated in a national trial inspection. Wherever necessary, the role of the Technical Secretariat was played by the arbiter and co-arbiter.

The procedures that were disregarded concerned such matters as the nomination and appointment of the Inspectors and provisions governing their diplomatic privileges and the selection and certification of equipment and instruments. With regard to the latter, a similar procedure was included in the Inspection Protocol.

Instead of a mandate from the Director General of the Technical Secretariat to the Inspection Team, specific instructions to the various participants in the trial inspection were added to the Inspection Protocol.

B. The suspicion

Deciding on the suspicion to be levelled at the inspected state was straightforward enough. The most likely violation of the Chemical Weapons Convention at a military airbase would be the storage of chemical ammunition (i.e. bombs) and, maybe, the presence of a depot for the bulk storage of lethal chemicals and/or a facility for filling chemical ammunition. It was decided that the trial would only involve suspicion of the presence of chemical weapons munitions or devices.

C. Warning time

It was decided to inform the airbase commander in advance of the time of the trial inspection. The commander was also extensively briefed on the in's and out's of the Geneva "Rolling Text" some weeks before the inspection. While this decision had the drawback that it eliminated the element of surprise, it also had a number of benefits:

1. It made it possible to reduce the size of the Inspection Team and to save time. The Inspection Protocol gives the Inspection Team the authority to secure the site and check all incoming and outgoing traffic. It was agreed with the airbase commander that he could choose a working day to ascertain what staff resources such an operation would involve; this made it unnecessary to determine this during the trial inspection itself.

2. Informing the commander resulted in a great deal of cooperation in the preparations for the inspection. It also enabled the base's senior personnel to take adequate measures to facilitate managed access etc. and to brief the rest of the base personnel, matters which will in due course be embodied in standing orders for all the armed forces.

3. A real challenge inspection under the Chemical Weapons Convention would have led to a complete suspension of the base's activities, with all the additional costs which that would have entailed. It was therefore decided not to disrupt the day-to-day activities of the airbase for the purpose of the trial inspection.

Bringing the base to a standstill would have created an extra problem for the crews of its aircraft on quick reaction alert, who would have had to be allowed to continue their operational duties. If the base had been brought to a standstill, these aircraft would presumably have had to be inspected first, before they be allowed to leave as necessary.

D. Testing instruments

As regards the testing instruments to be used in chemical weapons inspections, three types of test must first be distinguished:

- i. The analysis of ammunition without opening cartridge cases or taking samples.
- ii. The analysis of samples from ammunition.
- iii. The analysis of the immediate vicinity of the ammunition.

As was inter alia shown during the recent "Munster workshop" in the Federal Republic of Germany, the analysis of ammunition without opening it can be performed using:

- a. a shell-mantle thickness meter;
- b. a stethoscope;

- c. an X-ray machine;
- d. a gamma radiography system.

Analysis after opening ammunition and taking samples can be performed using:

- e. a mass spectrometer.

Instrument (a) can be used to determine whether an ammunition cartridge case is of an unusual type, which in itself does not of course prove that it is a chemical weapon.

Instruments (b) and (c) can be used to determine whether ammunition contains a liquid. If such a test is positive, the ammunition is almost certainly a chemical weapon. If only solid material is found, this is by no means to say, however, that the munition or bomb case concerned contains no chemical weapon substance.

The use of an X-ray machine, although quite possible, would require a larger Inspection Team.

Instruments (d) and (e) are more difficult to transport because of their size and weight. The use of instrument (d) requires exposure times of around three hours per item. Moreover, both instruments meet with the objection that their use requires additional personnel.

In the light of such considerations as the high costs and extra security requirements, it was decided not to use any of the above instruments during this first trial inspection but to take soil and air samples to be analysed by TNO later. On-site detection methods, such as gas detection and water analysis equipment, which can ascertain quickly the presence of chemical weapons, were used, however.

As an alternative to using the instruments detailed above, the Royal Netherlands Army's Explosives Ordnance Disposal Command agreed to provide descriptions and X-ray photographs of numbers and types of ammunition selected at random by the inspection team. The Disposal Command also agreed to be on

call on the day of the inspection in order to give advice and answer questions. However, the Inspection Team did not make use of either facility. In a real challenge inspection, samples from munitions would have to be taken or ammunition/shells selected for inspection elsewhere.

TNO promised to make both Inspectors and equipment available to take air and soil samples and analyse them later. The organisation also promised to provide some on-site detection equipment. This consisted of three small cases with descriptions of their contents, respectively containing gas detection equipment, water analysis equipment, and equipment for taking samples of solid materials.

In addition, the Disposal Command advised that air samples be taken from the space in ammunition reserved for the detonator. This thin-walled space, a possible location for any traces of toxic chemicals, is usually closed off by a metal screw cap when ammunition is in storage.

In view of the fact that the inspection was only a trial, it was decided not to provide the receiving state with any duplicate samples, since only TNO would be analysing them. Furthermore, the samples were not sealed, and vehicles were not specially equipped for the transport of samples that might contain highly toxic chemicals.

E. Miscellaneous

1. The Royal Netherlands Air Force promised to contact the airbase commander in order to reach a decision on the use of the two-way radio provided for in the Inspection Protocol. The Inspection Team was prepared to take the radio equipment with it only with the express permission of the commander and upon provision of a list of permitted frequencies. It was considered essential that any sort of disruption of air traffic be avoided. In a real inspection, of course, this problem would not arise, because the whole base would be brought to a complete standstill anyway.

2. The provision of NBC clothing was considered the responsibility of the Inspection Team. During the inspection, however, the Team was allowed to make use of clothing present on the base if it wished so.

6. CONCLUSIONS AND RECOMMENDATIONS

A. The briefing

At the beginning, lack of in-depth knowledge of the elaborate procedures of the Inspection Protocol was clearly a stumbling block for all parties concerned. It would seem advisable that, in future, more time be made available before the briefing to allow the leader of the Inspection Team to explain the nature and aim of the inspection and the Observer to give a brief account of the accusation, upon which the leader of the In-Country Escort can introduce the briefing. The base's senior staff can then begin the briefing itself.

The briefing provided by the airbase was comprehensive and helpful. This attitude played a significant part in boosting goodwill and ensuring a good relationship with the Inspection Team.

However, although no information relevant to national security was divulged, the briefing was perhaps excessively candid in view of the presence of a person such as the Observer. For example, information about the functions of particular buildings could quite justifiably have been revealed only if it had been explicitly requested.

The maps provided were of limited suitability as a basis for planning the inspection. However, this flaw was adequately offset by the presence in the briefing room of a large outline map and the additional information given by the base's deputy commander.

B. The inspection plan

The inspection plan was fairly detailed. Since it had to be altered quite frequently during the inspection, valuable time was wasted. Moreover, a plan that is too specific both stands in the way of spontaneous probing by the Inspection Team and gives the Inspected State Party more opportunity to take last-minute obstructive measures. This is equally true of the practice of announcing interviews in advance, as a result of which personnel to be interviewed were given a good two hours to prepare themselves.

Although the Inspection Team is perfectly entitled to draw up its inspection plan in private, for practical reasons it may be useful to have the In-Country Escort present.

The Observer ought also to have been present when the plan was drawn up. In discussions such as these, suggestions made by an Observer can be especially useful. After all, it cannot be ruled out that he or she will possess more information than has been provided in the inspection request, information which has not been included by the challenging state in order to protect its sources. Furthermore, if the Observer is not present when the inspection plan is drawn up, a great deal of time is taken up afterwards in briefing him or her about it.

A helicopter overflight of the site by an infrastructural expert, held after the pre-inspection briefing, provided interesting information which was used to revise the inspection plan.

Finally, the use of statistical calculations is to be recommended in the drawing-up of the inspection plan in order to determine the chance of detection based on the testing of random samples and the selection of such buildings as ammunition bunkers.

C. The Inspection Team

The Inspection Team had insufficient experience of the many procedures and practical problems it faced. There was also a

lack of organisation in the Team, which was worsened by its limited means of communications. The Protocol's requirement that the Team's division into subgroups be laid down in the inspection plan had a detrimental effect on the team's flexibility.

These problems could be solved either by enlarging the Team or by including Team members with expertise in several fields. The latter solution is preferable. Inspectors working in the Technical Secretariat ought to have such expertise. Consideration could also be given to amending the relevant provisions of the Protocol on Inspection Procedures, or give these a flexible interpretation.

D. The In-Country Escort

Like the Inspection Team, the In-Country Escort should also have a greater ready knowledge of the Inspection Protocol. During the inspection, the In-Country Escort should both prevent the Inspectors and the Observer from obtaining confidential information unrelated to chemical weapons and ensure that members of the base personnel - who, even in the event of a real inspection could not be expected to be fully informed of its scope - do not divulge such information. The In-Country Escort team should therefore, in addition to its task of escorting the Inspection Team and its subteams, include persons whose only duty it is to accompany the Observer continuously. (See F below for observer's powers.)

E. The base personnel

Given the circumstances, the staff and other personnel were well prepared for the inspection, especially with regard to their logistical duties such as accommodation, transport, etc. The only problem was the communications equipment (see I below).

The briefing was informative and sufficiently detailed to serve as a basis for the inspection plan. Except for during the inspection of the HAWK missiles, which was not originally planned, base personnel were always present in good time to escort the Inspectors.

As regards their preparation in respect of answering questions and allowing access to documents, buildings, etc., the personnel proved willing to provide the inspectors with relevant information. This is one of the major responsibilities of those accompanying the inspectors.

F. The Observer

During the inspection - as in the discussions about inspections in Geneva - the role of the Observer was the most controversial. Although his exclusive duty was to ensure to his own satisfaction that the inspection followed correct procedures in investigating the suspicions voiced by the Requesting State, the Observer obtained somewhat more sensitive information than desirable, despite repeated interventions by the in-country escort.

It may be impossible at this stage to provide any conclusive solutions to this problem. In practice, the escort team may have to decide on an ad-hoc basis on the acceptability of an Observer being present during all stages of the inspection.

There should be a separate escort for every Observer, who should also be given his own transport. It would be advisable for the Inspection Team to take the Observer's suggestions into account in establishing the inspection plan. This reduces the chance of irritation and interference during the inspection. Of course, the Inspection Team must have the last word with regard to the inspection plan.

The presence of an Observer is crucial and is primarily intended to be a confidence-building measure to reassure the Requesting State that the inspection is being carried out correctly and that its suspicions are being taken seriously. But the Observer need not necessarily take part in all stages of the inspection nor be concerned with all the technical aspects of its implementation.

The Observer's duties may need to be bound by a fixed set of narrowly defined rules in specific sensitive cases. He or she may be present at the briefing and make suggestions concerning the inspection plan. At any time during the inspection, he or she may investigate whether the Inspectors are implementing the inspection plan properly. To this end, the Observer should be kept constantly informed of how the inspection is progressing.

G. Managed access

It is essential that all parties be aware that the Inspection Team may ultimately gain access everywhere. Although classified information can be protected during a very intrusive inspection, the Inspection Team cannot be prevented from learning a great deal about such matters as the location and function of the buildings, the presence of protective clothing, etc.

Initially, access was refused by the Commander to the Electric Counter Measures shop, the command bunkers, and the ammunition dumps. Eventually, however, after classified material had been shrouded, access was allowed to the ECM shop, and a random sample of 33% of the ammunition dumps was allowed.

With regard to some sensitive bunkers, after quite limited access had been granted, it was shown that the presence of chemical weapons was very unlikely, although it could not be determined with absolute certainty whether there were any more rooms in the building - underground, for example. In a real inspection at such an airbase therefore, more access might be needed. In this case however, confidence with regard to compliance was sufficiently established, without gaining access to the whole building.

In due course, national guidelines must be established to determine under which conditions managed access measures should be taken and what their nature and extent should be. This is necessary to ensure that all representatives of the Inspected State (base personnel and In-Country Escort) adopt the same approach in protecting confidential information from the Inspection Team.

H. Safety

A problem which arose at the airbase concerns the guaranteeing of the safety of the Inspectors. The Netherlands is of the opinion that this cannot be required if national safety rules are violated or if activities are carried out which - nationally - may only be carried out by personnel specially trained to do so. During the inspection, the danger to the Inspectors of the highly explosive hydrazine in the hydrazine depot was pointed out. The Inspectors were asked to take air samples there at their own risk and to sign a declaration to that effect, which they did under protest, since the Protocol stipulates that the Inspected State must guarantee the safety of the Inspectors. However, the Protocol also provides for limitative preconditions concerning safety which may be imposed upon the Inspectors.

Nevertheless, situations must be avoided where a state can hamper the inspection of certain buildings by means of these provisions. Further consideration will have to be given to the relationship between the liability for Inspectors borne on the one hand by the Inspected State and on the other by the Organisation in those cases in which the Inspected State no longer wishes to take upon itself responsibility for the safety of the Inspectors.

I. Accommodation and communications

During the inspection, it became clear that the various teams, including the Observer, all needed their own offices.

Communication between the various subgroups proved to be insufficient, though in a real inspection the Inspection Team would take its own means of communication. A separate command post, in which the leader of the Inspection Team, the leader of the escort team and the base commander, all with their own means of communication, are present throughout the inspection, might be one solution. In this way, the inspection could take place in a more coordinated and efficient way.

The Observer also ought to have his or her own communications equipment, unless he or she is continuously being briefed by the leader of the Inspection Team in the central command post. Partly because of the considerable pressure of time, the Inspectors were unable to keep the Observer reasonably informed during this trial inspection.

J. Interviews

It is advisable not to announce interviews in advance and not to speak with senior personnel only. Every interview should be attended by a member of the in-country escort. It is recommended that the Observer should not be allowed to attend the interviews. Consideration could be given to providing Inspectors with some training in investigation and interrogation methods.

K. Size of the teams

For the inspection of the airbase, the size of the teams would in principle have been sufficient within the parameters set, if:

- the teams had had more experience;
- the inspection plan had been more flexible as regards the division into subgroups;
- if communications had been better.

As stated above, the Observer should have his or her own escort. If the base had been sealed off, an advance team with at least six members would have been necessary to organise and check that everything had been done correctly. In the case of the airbase under inspection, the fact that a railway track runs through the base might have required the involvement of additional personnel. However, an advance team would not appear to be necessary if the inspection team only announced its destination at the Point of Entry.

L. Duration

It is difficult to determine if the time available for the inspection was sufficient. Since time was short, a number of buildings located outside the base were not inspected, though

it should be noted that the Inspection Team did not make use of the possibility of prolonging the inspection, as provided for in the Inspection Protocol. Also, some buildings were visited twice by different subgroups.

The picture was also obscured by the fact that at some stages, at which certain persons (such as the Observer) were not supposed to be present, and which for this reason would have taken up extra time, the procedures were not carried out in full. This was also due to a lack of sufficient office space. On the other hand, a great deal of time could have been gained if the teams had been more experienced.

The same holds true here as, mutatis mutandis, in the case of the factors which determine the size of the teams. Three factors - namely available time, size of the teams, and size and nature of the inspection site - affect each other and are mutually dependent. In practice, the time available and size of the teams will probably have to be determined from case to case.

During a next trial inspection it would be preferable to make available as much time as is necessary to enable all the procedures and provisions, as laid down in the Inspection Protocol, actually to be tested in practice.

M. Testing instruments

In the event of a follow-up trial inspection, an attempt should be made to have analyses carried out on-site. The Inspection Team should take suitable equipment for this purpose with it. Furthermore, it is also to be recommended that gas samples should be taken more rapidly, using tenax tubes. Every subteam also ought to have gas detection equipment. The procedures for the transport and analysis of samples, provided for in the Rolling Text, should be tested.

N. Standard forms

For the sake of simplification and the expedition of the inspection, the parties ought to have at their disposal standard forms for such things as the inspection plan, provisional reporting, requests, and declarations. The Inspection Team should also be able to have at its disposal a checklist with indicators of the presence of chemical weapons.

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inspection, the parties ought to have at their disposal
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...of chemical weapons...

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...and six...
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...to each of the...
...to each of the...

CONFERENCE ON DISARMAMENT

CD/1019
23 July 1990

Original: ENGLISH

LETTER DATED 20 JULY 1990 FROM THE CHARGE D'AFFAIRES A.I.
OF NORWAY ADDRESSED TO THE PRESIDENT OF THE CONFERENCE
ON DISARMAMENT TRANSMITTING A RESEARCH REPORT ENTITLED
"USE OF SORBENT EXTRACTION IN VERIFICATION OF ALLEGED
USE OF CHEMICAL WARFARE AGENTS. PART IX" */

I have the honour to transmit to you a research report entitled Use of Sorbent Extraction in Verification of Alleged Use of Chemical Warfare Agents. Part IX, published by the Royal Norwegian Ministry of Foreign Affairs.

I would appreciate if the report would be circulated as an official CD document.

(Signed) Torbjørn Aalbu
Chargé d'Affaires a.i.

*/ A limited distribution of the document in English only has been made to the members of the Conference on Disarmament. Additional copies are available from the Permanent Mission of Norway in Geneva.

GERMAN DEMOCRATIC REPUBLIC

Report on a Trial Challenge Inspection

A national trial challenge inspection was carried out in March 1990 at an army ammunition depot belonging to a military district of the National People's Army. It was conducted on the understanding that the GDR does not possess any chemical weapons and has not deployed on its territory any such weapons of another country. The inspection had been prepared taking into account the "rolling text" of the draft convention on chemical weapons as well as the experience gathered in the implementation of the INF Treaty and of confidence- and security-building measures.

Aims

The basic aim was to test existing conceptions on challenge inspections and make national preparations for the implementation of the convention.

Specifically, the following objectives were pursued:

- to dispel the suspicion that chemical weapons are stored at the site, and
- to identify the extent of the tasks to be performed in inspecting a military facility.

Inspection Site

An army ammunition depot of a military district was chosen as inspection site, where - in accordance with its operational purpose - all types of ammunition forming part of organic armament are stored. The depot is located in the vicinity of other military facilities. The ammunition depot consists of an administrative area with various functional buildings and a storage area comprising various ammunition bunkers and storage rooms. The storage area is secured by a high-voltage electric fence. Access for motor and railbound vehicles is only possible through gates which are also secured by an electric fence. The ammunition bunkers have different markings depending on the types of ammunition stored in them and on the danger category to which they belong. Arranged in clusters within the depot area, the bunkers are connected by concrete roads.

Inspection Team

The inspection team consisted of ten inspectors, comprising four military ammunition specialists, two military experts for protection against chemical weapons, and four specialists for storage management. In view of the limited inspection aim of the trial, the role of a foreign observer or of personnel for securing the site was not examined.

Conduct of the Inspection

The inspection team was met by the depot manager at the entrance of the facility to be inspected and was then taken through the main gate to a room for a briefing. That room

served also as a meeting room for the inspectors. Using a scale model with a site map, the manager explained:

- the purpose and types of stored ammunition,
- the geographical location of the depot,
- the location of functional buildings and ammunition bunkers and storage rooms according to danger classifications,
- facilities of a sensitive nature, with explanations of the reasons for that,
- locations of the high-voltage electric fence and entrance gates.

It was possible to identify when the gates had been opened for transports on the basis of evidence produced by records on the times when the electric fence had been switched off.

With the help of models, the inspectors familiarized themselves with the types and markings of the ammunition stored. They were introduced to the leading officers of the depot and asked them questions related to the inspection.

The inspectors used the opportunity to spell out the inspection programme in greater detail and to modify it, taking into account the discussion held during the briefing. Subsequently, the depot manager informed them of the security regulations, signals and actions in case of accidents.

In conclusion he stated that no chemical ammunition was stored on the site and that no facility or measures had been prepared which would make the storage of chemical ammunition possible. The personnel of the depot did not have any

knowledge that would be necessary to handle chemical ammunition.

The time for the briefing of about one hour was not counted within the duration of the inspection.

The inspection itself was carried out in several stages:

Stage 1

A bus tour, using the site map as a basis, helped to give an initial impression of the entire depot area in order to

- verify the accuracy of the site map, and
- undertake a first visual inspection of the site.

During that inspection attention was paid to external signs which might indicate a possible storage of chemical weapons, such as

- open storage sheds and ammunition piles,
- availability on the site of means and facilities to decontaminate, monitor and discharge toxic waste water,
- construction facilities for ground water protection,
- means and facilities to provide medical aid in case of injuries from warfare agents,
- a facility to indicate wind direction and speed on the site,
- installations for ventilating or sealing off ammunition stores and availability of filter-based ventilation systems,

- changes in the vegetation and existence of biological indicators.

None of the aforementioned signs of a possible chemical ammunition storage were found during the inspection tour.

The inspection team asked for more detailed information concerning two bunkers classified as "sensitive". A respective query of the accompanying personnel with the depot management showed that this classification only related to certain elements of the ammunition and that access was possible.

Stage 2

For closer inspection the inspectors selected, and were granted access to, two ammunition bunkers. They checked the inscriptions, arrangement and number of ammunition cases, having some of them opened at random. They established that the contents of the cases corresponded with the inscriptions. A visual check of the ammunition gave no indication of chemical weapons (no hermetically sealable charging holes and closing devices). Closer checks on ammunition were regarded as unnecessary, and were therefore not undertaken.

The inspectors used the opportunity to address some questions relating the inspection to the depot personnel. These questions were duly answered. Information concerning wall strength and compactness of ammunition stores/rooms and protective barriers were classified as sensitive and pertinent questions remained unanswered. Subsequently, the surface of the bunker as well as its ceiling and walls were more closely examined to rule out the existence of special

Given the results of the inspection so far and having questioned the depot personnel, the inspectors found it unnecessary to examine other buildings, e.g. the repair and medical centres, or to inspect medical records.

After five hours the head of the inspection team stopped the investigations, stating that the suspicion of chemical ammunition storage was regarded as disproved on this site.

Conclusions

The conclusions from the findings of the trial inspection were largely identical with those drawn by inspectors in the United Kingdom, the Union of Soviet Socialist Republics and the Federal Republic of Germany. In sum, it can be said that the combined evaluation, as used in this trial inspection, of secondary characteristics and on-site checks provides, in the case of the selected site, sufficient evidence to prove that chemical weapons were non-existent.

The following observations can be added:

- The numerical strength of the team with 10 inspectors proved adequate. If required, the team could have been subdivided into smaller groups at times, but that was found unnecessary.
- The composition of the team, with experts from different fields, proved the right approach.

- Apparently, it remains a difficult question to determine in advance the size of an inspection team. In order to fix the number of inspectors and the duration of the inspection, it would be necessary to have prior knowledge of the operational purpose of the site to be inspected. Having only data concerning the size of the site, as envisaged in the "rolling text" of the draft convention, does not, in this context, allow a clear-cut decision on the number of inspectors needed.
- An initial analysis of the inspection results should already be undertaken on the site.
- For a number of organizational matters concerning preparations and monitoring, arrival of inspectors, conduct of the inspection and departure of the inspection team, it seems useful to draw on the experience gathered in the implementation of the INF Treaty as well as in the CSCE framework.

CONFERENCE ON DISARMAMENT

CD/1021
CD/CW/WP.311
26 July 1990

Original: ENGLISH

THE CZECH AND SLOVAK FEDERAL REPUBLIC

REPORT ON A TRIAL CHALLENGE INSPECTION AT A CHEMICAL FACILITY

1. Systematic verification under Chemical Weapons Convention will only cover facilities which have been declared by the State Parties. However, prohibited activities might occur at facilities which have not been declared or were declared, but not subject to, international monitoring. To assure full compliance with the projected Convention, additional verification methods are discussed. In case of serious suspicion of allegation Chemical Weapons Convention challenge inspection might be applied.
2. In principle, challenge inspection can be applied to both military and civilian facilities. To learn the practical problems of this type of inspection, many States participating at the Conference on Disarmament have made challenge trial inspections at military facilities; however, the problem of challenge inspections at chemical facilities has been addressed by the Netherlands (CD/925) and Canada (CD/987). This document describes the results of a trial challenge inspection at a multipurpose chemical facility in Czechoslovakia.
3. The aim of the inspection was to check the possibility of misuse of the inspected facility equipment for producing chemicals on Schedules 1 and 2, the presence of declared chemicals on Schedule 3 and their use and the absence of non-declared chemicals.
4. Some provisional observations
 - 4.1 The choice of inspected facility

At the multipurpose facility, one unit producing herbicides from phosgene was chosen.
 - 4.2 Notice of inspection

The facility was informed of the exact date of the inspection 24 hours prior to the inspection.

4.3 Inspection team

The members of the inspection team were those designated for assistance to the United Nations Secretary-General for examination and analyses in the event of an investigation of reports of alleged use of chemical weapons (CD/980) and others designated to help in the forming of the Czechoslovak Preparatory Committee of the Czechoslovak National Secretariat for the future Chemical Weapons Convention. The total number of persons from whom the choice was made was 23. For this group, 2-day sessions were arranged to prepare for the inspection. From these experts, the following members of the inspection team were designated:

Industrial production experts	3
Storage and record-keeping experts	2
Analytical expert	1
Expert of the Czechoslovak delegation to the CD	1
Observers (Ministry of Foreign Affairs, Ministry of National Defence)	5

The representative of the Ministry of Industry was elected as the Head of the inspection team.

4.4 Point of entry

As only Czechoslovak nationals participated, the point of entry was the Ministry of Foreign Affairs in Prague. The transport of participants was by minibus and two cars. The time between assembly in Prague and transport to the site was 9 hours.

4.5 The facility was specified by name, owner and name of the production unit. The production unit within the complex was specified on the plan of the whole facility (App. I).

4.6 Opening conference

The management of the whole facility was informed about the aims of the inspection. The inspection group was then transported by cars to the production unit specified for inspection. The chief of the production unit explained to the inspection team the following points:

- scheme of the production unit reflecting its dedicated purpose;
- sensitive places and possibilities of their protection;
- security and special measures which were signed by members of the inspection team;
- organizational aspects;
- securing the site.

In this case, it was very difficult to secure the whole unit because of its incorporation into the complex and its connection with the complex by pipes etc. The problem was solved by the control of input and output of chemicals or raw materials and by random control of transport in the inspected area. It could be better solved using seals for exits and entrances; this would require more personnel on the inspection team or personnel specially dedicated to securing the site.

4.7 Orientation visit

On the basis of information given by the management, a visit to the whole area was undertaken.

4.8 Inspection plan

After this first visit, the inspection team divided into inspection subgroups and the Head of the inspection team elaborated an inspection plan. On this basis the management of the facility designated responsible persons for each subgroup.

4.9 Inspection - second visit

4.9.1 Subgroup for production

The members of this group studied technological documentation. Some questions on confidentiality arose. The inspected unit involved three reactors for batch production: each was designed for unitary production. From inspection of the production unit it appeared that without substantial changes of technological equipment it would not be possible to produce chemicals on Schedules 1 and 2. Daily operational evidence was considered by management as not important for the purpose of inspection. On the other hand, monthly computed evidence was available (without commercial information) and it was considered appropriate for inspection. One problem could be the inability to determine directly the consumption of phosgene because of the lack of specific instrumentation. However, calculation of consumption on the basis of final product quality was an alternative method of quantitative control of this Schedule 3 compound. The following features were inspected:

- production schedules and adherence to these;
- equipment, with special attention to the containment aspects of valves, reactors, etc. and to special safety security measures;
- the number of reactors, their connection with other parts of the unit/complex;
- technological scheme;
- fluoride resistant pipes;
- exchangeability of the equipment;
- the level of automation;
- duplicated valves, pipes, containers;
- input and output control;
- automatic monitoring of dangerous chemicals;
- safety signs, precautions;
- standby emergency electricity, gas etc.;
- special safety regulations;
- use of protective masks, clothes etc.;
- methods of calibration;
- service;
- waste treatment;
- containers of raw material and products;
- production and consumption of intermediates;
- production documentation;
- operational records, movements of chemicals in the unit;
- transport;

- evidence of intermediates;
- duplicated record-keeping;
- data on service and calibration.

Following discussion points might be of interest:

- the presence of a so-called "lodger" unit;
- at the specific unit, isocyanates are produced; detailed technological procedures were characterized by management of the facility as confidential, with control of input/output materials only;
- the knowledge of filters and masks would be needed.

4.9.2 Subgroup for personnel examination/interview

The members of this group focused their attention on the following questions:

- organization of the work;
- health service;
- occurrence of accidents, fires, etc.;
- security and protective measures;
- knowledge of activities in case of accidents;
- first aid, medical kits;
- medical documentation.

A problem might occur with obtaining data dealing with special examinations (for hepatotoxicity, carcinogenicity etc.). The medical station was not included within the area of access of inspectors. Medical data were obtained on request. They were of general nature but not for individuals.

4.10 Short meeting of the inspection group

The following points were discussed in this meeting:

- evaluation of the data obtained;
- comparison of these data (obtained by subgroups) - cross information;
- anomalies;
- requests for sampling, possible further visit.

It was concluded by the analytical expert that sample analysis was not necessary.

4.11 Further visit and sampling (if necessary)

Nevertheless, air samples from the production unit were subsequently analysed using indicator tubes for the presence of cholinesterase inhibitors, phosgen, mustards, lewisites, HCN, cyanogen chloride and chlorpicrin. The results were negative.

4.12 Final meeting of the inspection group

This was a short meeting with an exchange of views between different members of the inspection team.

4.13 End of the inspection

Meeting with the management of the facility to announce the end of the inspection.

4.14 Transport to Prague

5. Report of the inspection team (App. II)

This was elaborated following the return to Prague.

6. Conclusions

6.1 Some difficulties might occur in securing the site.

6.2 Importance of practical experience in all members of the inspection team is recognized.

6.3 The method of cross-referencing might be useful.

6.4 The number of inspectors depends on the type of facility; in the case of a small production unit, five are considered necessary.

6.5 Confidentiality is closely connected with technology and production data; the problems may arise from requests for this type of information; in this area, considerable co-operation between the management of the facility and the inspection team is needed.

6.6 The level of safety measures can be considered a useful indicator of possible production of toxic substances not on the Schedules.

Col. Dipl. Eng. J. P. ...

Col. Dipl. Eng. J. ...

Lieutenant-Col. Dipl. Eng. ...

Captain Dipl. Eng. ...

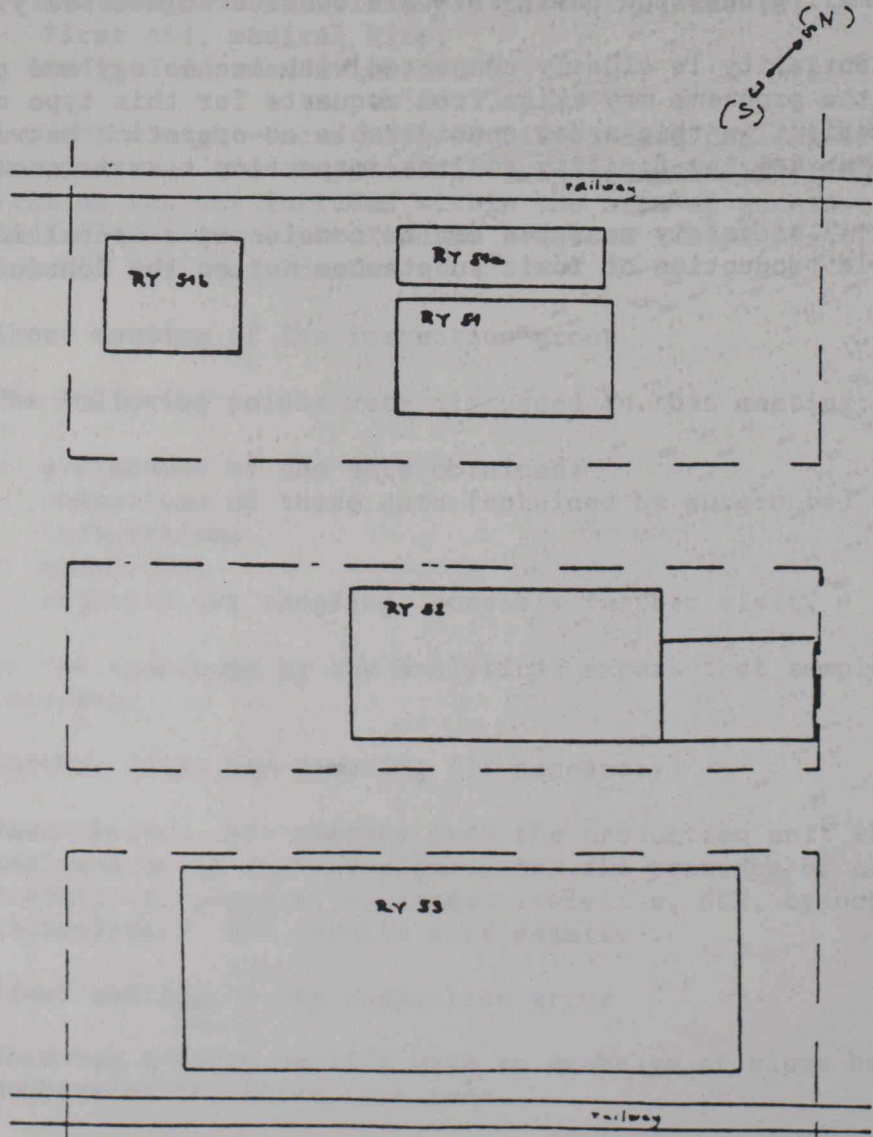
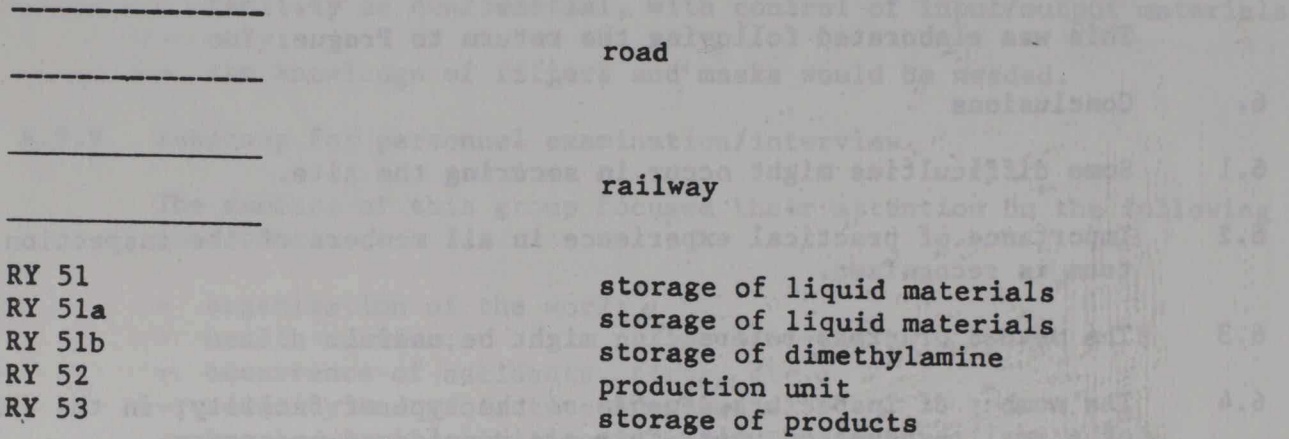
Stefan FULLER

Federal Ministry
of National Defense

Federal Ministry of
Atomic Energy

Appendix I

**SCHEMATIC PLAN OF THE INSPECTED UNIT
(HERBICIDES DERIVED FROM PHOSGENE)**



Appendix II

REPORT OF THE INSPECTION TEAM

A Czechoslovak trial challenge inspection was carried out at a chemical facility VCHZ Synthesia Pardubice, production unit herbicides - Rybitví on 4 July 1990. Following the inspection, the inspection team decided that the activity of inspected facility is in full compliance with the Chemical Weapons Convention. Collaboration of inspection team with the Management of the inspected facility was very good. No anomalies or disputes were observed.

Prague, 5 July 1990

SIGNED:

Dipl. Eng. Milan MAXA	Ministry of Industry
Col. Assoc. Prof. Jiří BAJGAR, M.D., Ph.D. Major Dipl. Eng. Viliam FOLDOSI, Ph.D. Dr. Josef VACHEK	Federal Ministry of National Defence
Dipl. Eng. Jiří KUČLER	Ministry of Industry
Dipl. Eng. Antonín LICKA, Ph.D.	Res. Inst. Org. Synthesis, Pardubice
Dipl. Eng. Vladimír SOCHA, Ph.D.	Chemical Faculty, Pardubice
Observers:	
Col. Dipl. Eng. Jiří DVOŘÁK Col. Dipl. Eng. Jan RYŠAVÝ Lieutenant-Col. Dipl. Eng. František MAIER Captain Dipl. Eng. Jiří CABAL	Federal Ministry of National Defence
Štefan FULLE	Federal Ministry of Foreign Affairs

THE CZECH AND SLOVAK FEDERAL REPUBLIC

Report on a Trial Challenge Inspection at a Military Facility

1. National trial inspections of many States participating at the Conference on Disarmament were conducted in 1988 and 1989. Verification of compliance with the provisions of the Chemical Weapons Convention are under discussion and constitutes one of the most important issues in the framework of the Ad hoc Committee on Chemical Weapons. There are many questions to be resolved especially in the light of challenge inspection.
2. Challenge inspection has both political and technical aspects. Czechoslovakia believes that the principle of challenge on the basis of its obligatory character, without right of refusal, any time, anywhere and at short notice is in agreement with its previous statements. The technical aspects of challenge might be solved on a practical level by evaluating real experiences from national experimental challenge inspections. Czechoslovakia fully agrees with the proposal of the United Kingdom that a number of countries participating to the Conference on Disarmament conduct national challenge inspections, as was suggested in United Kingdom documents CD/921 and CD/1012. The present document refers to the results of a trial challenge inspection at a military facility in Czechoslovakia.
3. The aim of the inspection was to verify the present/absence of chemical weapons at the facility.
4. Some provisional observations
 - 4.1. The choice of inspected facility

On the basis of a proposal of the Federal Ministry of Foreign Affairs, the Czechoslovak Army declared 10 military facilities (simulating all military regiments, plants, laboratories, etc.)

One of these was chosen on a random basis.
 - 4.2. Notice to inspection

The facility was informed of the exact date of the inspection 24 hours prior to the inspection.

4.3. Inspection team

The members of the inspection team were those designated for assistance to the United Nations Secretary-General for examination and analyses in the event of an investigation of reports of alleged use of chemical weapons (CD/980) and others designated to help in the forming of the Czechoslovak Preparatory Committee of Czechoslovak National Secretariat for the future Chemical Weapons Convention. The total number of persons from whom the choice was made was 23. For this group, 2-day sessions were arranged to prepare for the inspection (programme enclosed, Appendix I). From these experts, the following members of the inspection team were designated and were granted full access to the inspected regiment.

Specialists in chemical detection	2
Industrial experts	2
Military experts	3
Lawyer	1
Storage and record-keeping experts	3
Negotiator at the Conference on Disarmament	1

From this staff, one was elected as a Head of the inspection group, whilst another person, who was familiar with the negotiations on the chemical weapons ban and who has analytic, toxicological and military experiences, was designated as a Deputy Head of the inspection group. The members of the inspection team obtained a certificate for their work from the Ministry of National Defence guaranteeing full access to the inspected military facility.

4.4. Transport and point entry

As only Czechoslovak nationals participated, the point of entry was the Ministry of Foreign Affairs in Prague. The transport of participants was by minibus and two cars. The time between assembly in Prague and transport to the site was nine hours.

4.5. Inspected facility

The facility was specified by name and local position; nevertheless, precise location of access was done on-site using a plan of the facility. The facility inspected was military regiments artillery brigade in East Bohemia and had the following characteristics, area, about 18 ha, perimeter, 860 m, number of buildings, 52, storage building only, 1, combined storage buildings, 4, nature of terrain, lowland; accommodation and administrative area, 1355 m², storage area, 860 m², garage area, 4100 m², perimeter 2200 m, number of gates 7.

4.6. Opening conference

The Head of the inspection team described the aim of inspection. The Commander of the inspected facility described the character of the regimental facility including its schematic plan (Appendix II) and sensitive places such as mobilization plans. The inspection team was acquainted with the facility's security measures which were signed by all members of the inspection team. This was followed by information on organizational aspects (room, telephone, health service etc.). The site was then secured by the Commander's order.

4.7. Orientation visit

On the basis of information given by the Commander, and using the plan of the facility, a visit to the whole area was undertaken. During this visit, random checks on the securing of the site were made, including transport control (three vehicles left the place, two arrived and two cars were checked by inspectors). Securing the site by inspectors for the facility inspected showed that one person appropriately equipped, would require 90 minutes.

4.8. Inspection plan

After this initial visit, the inspection team divided into inspection subgroups and elaborated inspection plans. The Management of the facility designated responsible persons for each subgroup. The following subgroups were established:

- subgroup for personnel examination/interview
- subgroup for storage.

4.9. Inspection - second visit

4.9.1. Subgroup for personnel examination/interview

The members of this subgroup had discussions with different workers, including the Commander of the regiment, officers and soldiers. The nature of information obtained was as follows:

- organization of the work
- health service
- occurrence of accidents, fires, etc.
- security and protective measures
- knowledge of activities in case of accidents
- first aid, medical kits
- medical documentation.

The person designated by Commander was present during these discussions and disputes were resolved with the Head of the subgroup; some problems arose from these interviews, e.g. access to medical documentation.

The relevant data can be obtained in general but not for individual persons; in some cases the contact of soldiers with inspectors was difficult; it is likely that this will be exacerbated where translation is required.

4.9.2. Subgroup for storage

This subgroup studied documentation of randomly selected ammunition and physically inspected three storage sites. The identification of ammunition stored was made on the basis of standards (designation of the shells). Other items investigated were as follows:

- presence of filters, ventilation etc.
- guard of the stocks
- transport
- service
- presence of decontaminants
- methods of evidence
- exchange of protective measures (collective and individual)
- movement of the material stockpiled
- evidence of controls in the stocks
- data on education of personnel
- duplicated records.

In two storage sites, detection of some listed chemicals by indicator tubes was undertaken with negative results. With these tubes, cholinesterase inhibitors, mustards, lewisites, cyanogen chloride, hydrogen cyanide and chlorpicrin may be detected; indication of the presence of BZ, toxins, DF and QL is not possible by this method.

4.10. Short meeting of inspection group

Requests for further visit and for possible sampling were discussed. Anomalies and disputes were also considered.

4.11. Further visit and sampling (if necessary)

4.12. Final meeting of inspection group

4.13. Closing the inspection

Short meeting with the Commander of the regiment who did not have information on the results of inspection and finished the inspection.

4.14. Transport to Prague

5. Report of the inspection team (Appendix III)

6. Conclusions

- 6.1. Challenge inspection on a Czechoslovak military facility showed that, in principle, this inspection can be carried out using some of the provisions contained in document CD/961.
- 6.2. It appears from our results that the approach used in the orientation, and possibly further, visits can be considered as useful. However, in some cases, the time-consuming first visit could be supplemented by detailed study of the plan of the inspected area and visits to selected places by a designated subgroup.
- 6.3. Our results emphasized the important role of the Head of the inspection team and the necessity of appropriate qualifications for all its members. The training of inspectors is strongly recommended.
- 6.4. The importance of personnel examination/interview. Information on the health service and results of medical examinations might be a problem in some cases.
- 6.5. The level of protection (physical security, its equipment, protective measures etc.) can be considered also as useful pointers.
- 6.6. The minimum number of inspectors for short time challenge inspection would be five.
- 6.7. Confidentiality can be achieved during this type of inspection; it is very dependent on co-operation between inspection team and the Commander of inspected facility.
- 6.8. Securing the inspected site is important and a potentially difficult problem; additional personnel would be required for this and other roles (translation, administration etc.).

Appendix I

PROGRAMME TO PREPARE INSPECTORS FOR THE CZECHOSLOVAK TRIAL
CHALLENGE INSPECTION - 2-DAYS SESSION

LECTURE	HOURS
- Introductory remarks	0.5
- Development of CW ban - Present stage of negotiations on CW Convention - Verification measures contained in the rolling text	4
- Results of NTIs - Results of trial challenge inspections - Instrumental monitoring	4
- Proposal for Czechoslovak trial challenge inspection	2
- Discussion	2.5
- Closing remarks	1
	14

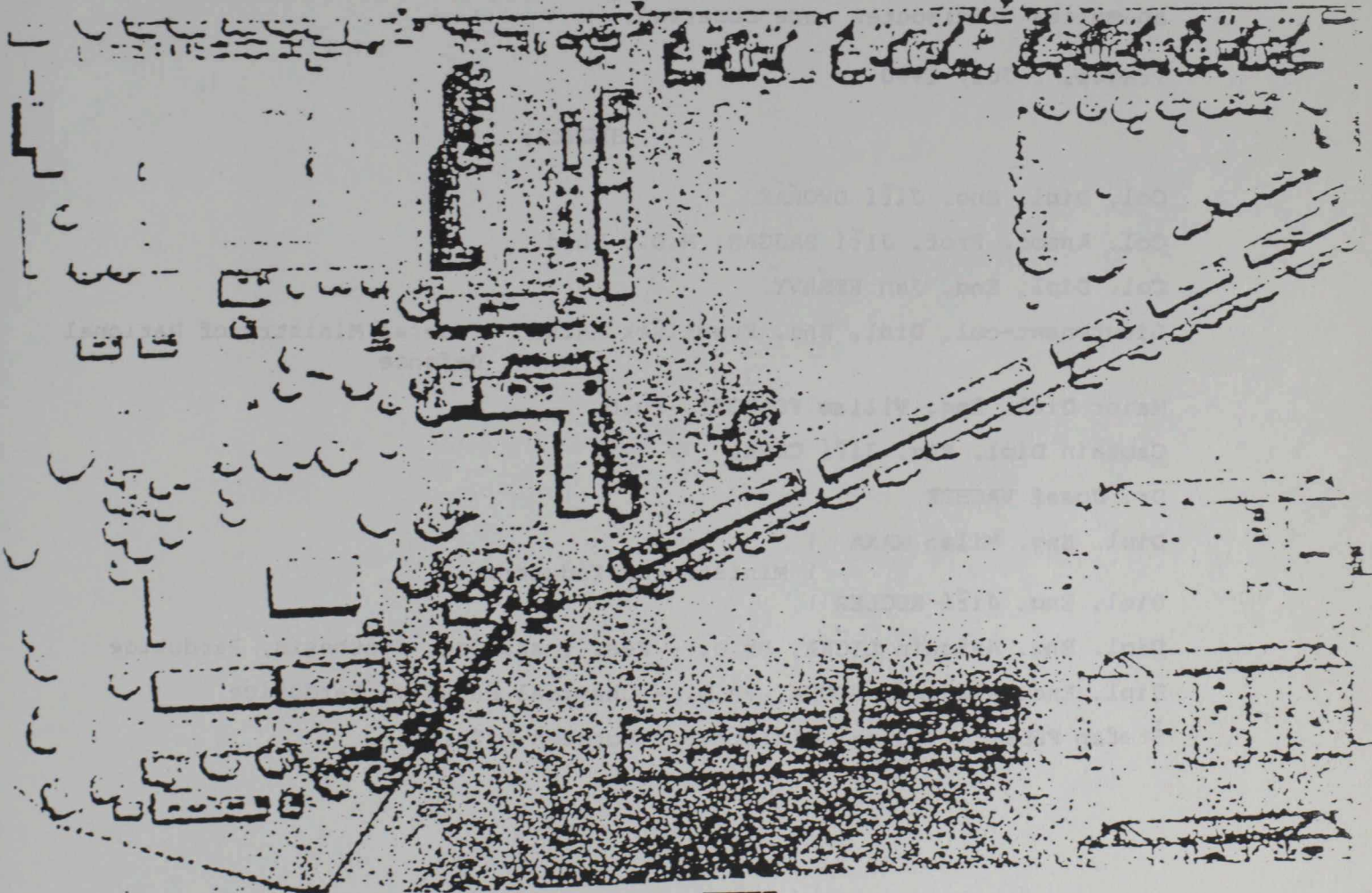
Examples of literature for inspectors:

- . Documents of the CD, especially CD/981, reports on NTIs (i.e. CD/CW/WP 213, 216, 228, 233, 236, 237 ... etc.); reports on other inspections (i.e. CD/921, 925, 966, 975, 983, 987, ... etc.); "Blue books" of Finland (i.e. CD/794, 765, 843, 873, ... etc.), instrumentation (CD/CW/WP 272).
- . SIPRI CBW Studies (i.e. No. 4 and 5: The Chemical Industry and the Projected Chemical Weapons Convention. Proceedings of a SIPRI/Pugwash Conference, Vo. I and II; No. 9: Non Production by Industry of Chemical Warfare Agents: Technical Verification under a Chemical Weapons Convention, S.J. Lundin, Ed.)
- . Baigar, J., Stibor, Z.: Prohibition and Destruction of Chemical Weapons; from the Past to the Present. Information Bulletin of the Military Medical Academy 30, No. 1, 1989, pp. 5-100, Battle tradition of chemical troops, Naše Vojsko, Praha 1990, pp. 1-80 (in Czech)
- . Papers of different authors published in international Journals (JAMA 262, No. 5, 1989, p. 640, Chemical Weapons Convention Bulletin, No. 1-8, 1988-1989) and national (in Czech) (A-revue 43, No. 4, 1990, p. 32; People's Army 42, No. 24, 1989, p. 1045, Czechoslovak Pharmacy 37, No. 3, 1988, p. 116, 38, No. 5 1989, p. 239; Chemical Industry 29, No. 2, 1989, p. 1 etc.).

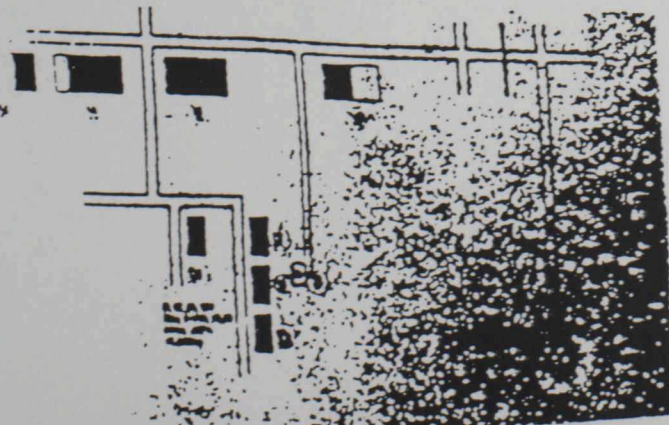
Appendix II

SCHEMATIC PLAN OF INSPECTED FACILITY;
SCHEMATIC PLAN OF STORAGE SITES

PLÁN KASÁREN PAROUBICE



PLÁN ROZMÍSTĚNÍ SKLADŮ



Appendix III

REPORT OF THE INSPECTION TEAM

A Czechoslovak trial challenge inspection was carried out at an artillery brigade (Pardubice) on 3 July 1990. Following the inspection, the inspection team decided that the activity of inspected regiment is in full compliance with the Chemical Weapons Convention. Collaboration of the inspection team with the command of the inspected facility was very good. No anomalies or disputes were observed.

Prague, 5 July 1990

SIGNED:

Col. Dipl. Eng. Jiří DVORÁK

Col. Assoc. Prof. Jiří BAJGAR, M.D., Ph.d.

Col. Dipl. Eng. Jan RYŠAVÝ

Lieutenant-col. Dipl. Eng. František MAIER - Federal Ministry of National
Defence

Major Dipl. Eng. Viliam FOLDOSI, Ph.D.

Captain Dipl. Eng. Jiří CABAL

Dr. Josef VACHEK

Dipl. Eng. Milan MAXA)
) Ministry of Industry

Dipl. Eng. Jiří KUCLER)

Dipl. Eng. Antonín LIČKA, Ph.D. - Res. Inst. Org. Synthesis, Pardubice

Dipl. Eng. Vladimír SOCHA, Ph.D. - Chemical Faculty, Pardubice

Štefan FULLE - Federal Ministry of Foreign Affairs

CONFERENCE ON DISARMAMENT

CD/1023
27 July 1990

Original: ENGLISH/FRENCH

(Extract)

LETTER DATED 25 JULY 1990 FROM THE REPRESENTATIVE OF
THE FEDERAL REPUBLIC OF GERMANY ADDRESSED TO THE
SECRETARY-GENERAL OF THE CONFERENCE ON DISARMAMENT
TRANSMITTING A DOCUMENT ENTITLED "RESULTS OF THE
INTER-PARLIAMENTARY CONFERENCE ON DISARMAMENT"

(Bonn, 21 to 25 May 1990)

From 21-25 May 1990 the Inter-Parliamentary Union held an
"Inter-Parliamentary Conference on Disarmament" in Bonn. Considerations in
this conference touched on many subjects of importance for the work of the
Conference on Disarmament. I have the honour to forward to you the outcome of
the deliberations contained in the following document:

Results of the Inter-Parliamentary Conference on Disarmament".

The document is attached in the official English and French versions. I
should be grateful if you would circulate the document in its English and
French versions as an official document of the Conference on Disarmament.

(Signed) Adolf von Wagner

III. Chemical disarmament

12. The Conference noted that the Geneva negotiations for a multi-lateral convention banning the development, production, stockpiling and use of chemical weapons have entered the final stage. There is general consensus that, if the present negotiating momentum is sustained, a convention could be completed in 1991. Some delegations underlined the importance of expanding the mandate of the negotiations in the Conference on Disarmament with the inclusion of the unrestricted prohibition of the use of chemical weapons so as to guarantee that the future convention constitutes a comprehensive, non-discriminatory and total ban on chemical weapons, which is a prerequisite for universal adherence to the convention. The difficulties which must still be overcome are related to: certain aspects of on-site inspection; order of destruction and assistance and protection against chemical weapons; the contents of lists of substances subject to prohibition or limitation; the role, decision-making powers and composition of the executive council of the organization to be set up by the convention; the relationship between the convention and the 1925 Geneva Protocol prohibiting the use of chemical weapons; and sanctions in response to violations.

13. The Conference supported the objective of a total ban on chemical weapons. It was recalled that the use of these weapons was forbidden by the 1925 Geneva Protocol, a rule which was confirmed by the Paris Conference in 1989. Many speakers stressed the need for universal adherence to the future convention and for parliamentarians to take urgent action with their Governments to that end.

14. Certain delegations considered however that there was a need to establish zones free of both chemical and nuclear weapons. Others argued that such an approach was unacceptable since the two types of weapons are not equivalent and should, therefore, be considered and dealt with separately. They pointed out that chemical weapons have been resorted to several times in recent years, have indiscriminately increased the suffering of both combatants and civilians, and that this use has been condemned by the UN Security Council.

15. Undue delay in concluding the convention may increase the risks of chemical weapon proliferation. Already some 20 countries are now known to possess, or are suspected of possessing or striving for chemical-weapon capability. The Conference welcomed the announcement that the Soviet Union and the United States - the two main chemical-weapon powers - have removed the last hurdles to an agreement for the destruction of the major part of their stocks and that this agreement will follow the guidelines of the draft multilateral treaty which is under consideration at the Conference on Disarmament.

16. Parliaments have an important role to play in achieving the universality of the convention. They should take action so that as many States as possible adhere to the convention at the initial stage; they have an exceptional role in decision-making on the participation of their countries in the convention.

17. Several delegates expressed concern with regard to compliance with the 1972 Convention which prohibits biological and toxin weapons, and postulated the improvement of the verification procedures. The conference of the parties planned for 1991 to review the operation of this Convention may provide an opportunity for taking appropriate measures.

PERU

New article of a convention on chemical weapons
relating to the environment

ARTICLE No. ...

1. Nothing provided for in the present convention shall be done to the detriment of the ecological integrity of the environment.
 2. The States Parties undertake to adopt any measures that may be necessary so that, in implementing the convention, one of the priorities shall be the preservation and decontamination of the environment.
 3. Without prejudice to the appropriate national measures adopted, each State Party shall, in the process of destroying its stockpiles of chemical weapons, inform the Organization, within a period of less than 48 hours, of any incident which may impair or threaten to impair, either directly or indirectly, the ecological integrity of the environment. The Organization shall immediately circulate such information to the States Parties. It shall also adopt the necessary measures in co-operation with the State concerned and taking into account the provisions of article X.
 4. The States Parties undertake to establish an assistance and environmental protection fund for the promotion and implementation in developing countries of prevention and environmental decontamination programmes in the industrial and sanitation sectors. The management of the fund shall be the responsibility of the Organization.
-

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1953

has established a commission to study the
problem of disarmament.

ARTICLE NO. 1

1. The Commission shall be composed of representatives of the United States, the United Kingdom, the Soviet Union, the French Republic, and the People's Republic of China. It shall also include representatives of other States which are invited by the Commission.

2. The Commission shall have the honor of the Secretary-General of the United Nations. It shall report to the General Assembly of the United Nations at its first session and at such subsequent sessions as the Commission may deem appropriate.

3. The Commission shall have the honor of the Secretary-General of the United Nations. It shall report to the General Assembly of the United Nations at its first session and at such subsequent sessions as the Commission may deem appropriate.

4. The Commission shall have the honor of the Secretary-General of the United Nations. It shall report to the General Assembly of the United Nations at its first session and at such subsequent sessions as the Commission may deem appropriate.

CONFERENCE ON DISARMAMENT

CD/1025
CD/CW/WP.314
31 July 1990

ENGLISH
Original: SPANISH

PERU

PROPOSAL BY PERU FOR THE INCLUSION IN THE CHEMICAL WEAPONS CONVENTION OF AN ARTICLE ON "DURATION"

"This Convention shall be permanent in character and shall continue in force indefinitely. The obligations flowing from it shall nevertheless cease for States Parties not possessing chemical weapons if, 90 days after the conclusion of the period of destruction provided for in article (...), the Organization is not in a position to declare that all the States Parties have fully carried out their obligations specified in article I of this Convention."

CONFERENCE ON DISARMAMENT

CD/1026
CD/CW/WP.315
3 August 1990

Original: ENGLISH

FEDERAL REPUBLIC OF GERMANY

CW Verification Workshop Munster
14./15. June 1990

1. On 14. and 15. June 1990 the Federal Republic of Germany hosted a Workshop in Munster, Lower Saxony, devoted to CW verification instruments. Representatives of all member and observer states of the Conference on Disarmament had been invited. The purpose of this Workshop was to demonstrate already available instruments which can be used for on-site inspections under a CW Convention. The instruments shown had already been successfully applied in trial challenge inspections as well as in a trial ad hoc check conducted by the Federal Republic of Germany (cf CD/975 of 9 March 1990, CD/983 of 5 April 1990, CD/950 of 17 August 1989).

During our trial challenge inspections the inspection team was faced with the task of verifying effectively and at the same time in the least intrusive manner possible whether there was any indication of a treaty violation. In this regard the non-destructive examination of munitions posed a particular problem. However it proved possible with the help of present state of the art equipment to effectively verify whether examined munitions had a chemical filling. By using such instruments and techniques, singly and in combination, as

- Wall Thickness Meter (cf. Annex 1)
- Electronic Stethoscope (cf. Annex 2)

- Radiography (cf. Annex 3)
- Mobile X-Ray Equipment (cf. Annex 4)
- Mobile Gamma-Ray-Projector (cf. Annex 5)
- Neutron Activation Analysis (cf. Annex 6)

it was possible to rule out any liquid chemical charges and to distinguish chemical from high explosive ammunition. The application of the aforementioned instruments and testing techniques made it possible to safeguard sensitive information as well as to avoid a costly destruction of munitions. Also, modern ammunitions can be investigated without sensitive electronic sensors being affected or damaged.

In our trial challenge inspections and also in particular in our trial ad hoc check we applied mass spectrometry, the most universal, high-powered process for analysing organic chemicals. A mobile mass spectrometer developed by the German armed forces was tested. This instrument, which is capable of carrying out analyses directly and swiftly on the spot, proved to be an invaluable means at the disposal of the inspection team. Programmed for the detection of chemical warfare agents through selected ion monitoring it can be used effectively to screen different kinds of samples for the presence of relevant substances without the need to fully analyse the samples in question. In this way an effective protection of confidential data is provided for. The mobile mass spectrometer renders ad hoc verification measures, geared to the sole purpose of verifying the presence or absence of chemicals listed in the schedules of the Annex on chemicals (cf. CD/961 of 1 February 1990) feasible and meaningful. The mobile mass spectrometer is further developed with the view to reduce its weight and size to make it portable. In addition software dedicated to non-intrusive on-site inspections is also being developed (cf. Annex 7).

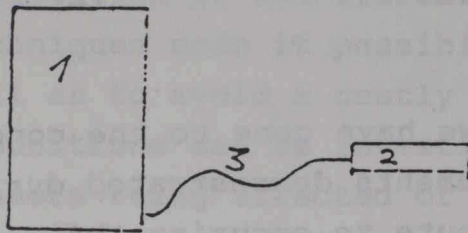
The CW Verification Workshop also provided for an opportunity to demonstrate the SNAL system, an earlier version of which has already been presented in the Conference on Disarmament (cf.

CD/CW/WP.204 of 19 July 1988). This chemical process monitoring system based on automated micro-sampling on magnetic tape and retrospective on-site evaluation is a useful instrument for continuous monitoring in particular in the field of non-production verification (Art. VI of the Rolling Text). The latest version of the SNAL system has just been tested in a facility of a German chemical company.

Following our trial inspections we have come to the conclusion that the inspection methods and instruments demonstrated during the workshop can significantly contribute to ensuring the verifiability of a future CW Convention. With their help it is possible to dispel with adequate certainty any suspicion that chemical weapons are being produced or stockpiled, without sensitive information having to be disclosed. This conclusion should in turn provide an important pre-requisite for the acceptance of the envisaged verification system of the CW Convention and in particular challenge inspections, the key element of the verification system.

2. The Workshop in Munster provided also for an opportunity to visit the incineration plant of the Federal Armed Forces Defence Science Agency for NBC Protection. This plant is used for the environmentally safe destruction of old obsolete chemical weapons from World Wars I and II. The planned second incineration plant with rotary kiln will have the capability needed for the clean-up of contaminated soil. A brief introduction to the historical background, the removal concept for found ammunition and the function of the incineration plant is provided in Annex 9.

Instrument: Wall thickness meter



1. Wall thickness meter
2. Probe
3. Adapter cable

Technical data:

Power supply	5 NiCd cells or 5 dry cells
Operating time	at least 12 h
Weight	app. 400 gramms inc. battery
Measurement range	0,6mm to app. 300mm
Measurement accuracy	+/- 0,1mm
Test materials	all materials with sound velocities between 10m/s to 9990m/s
Probe	normal beam probes and special probes

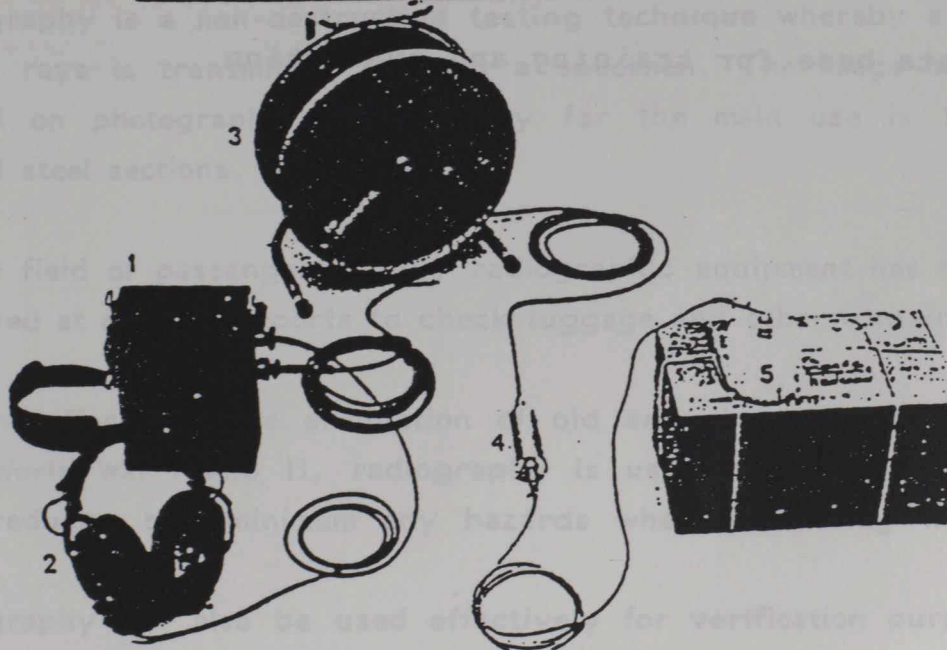
Application as verification instrument:

The digital wall thickness meter is to be used for the nondestructive measurement of the thickness of containers, ammunition etc. The exact thickness is a prerequisite for the exposure time by using X-ray equipment. Advantages: Easy operation by only one control for the zero check and precise input feeding for the sound velocity constants. Operational comfort due to a handy shape and light weight.

Need for further development as verification instrument:

none

Instrument: Electronic Stethoscope



1. Main amplifier with control elements
2. Headset in military standard
3. Cable reel with shielded cable appr. 60 - 80 m
4. Pre-amplifier
5. Piezo element in special housing

Technical data:

Voltage	12 V via rechargeable NiCdbattery
Continuous operation	> 8h
Physiologic limit of audibility	variable
Adjustable filters	F(1) = 2,5-5,796 kHz F(2) = 5,74-8,66 kHz
Temperature range	-25 Grad C - + 60 Grad C
Amplification	> 5 x 10

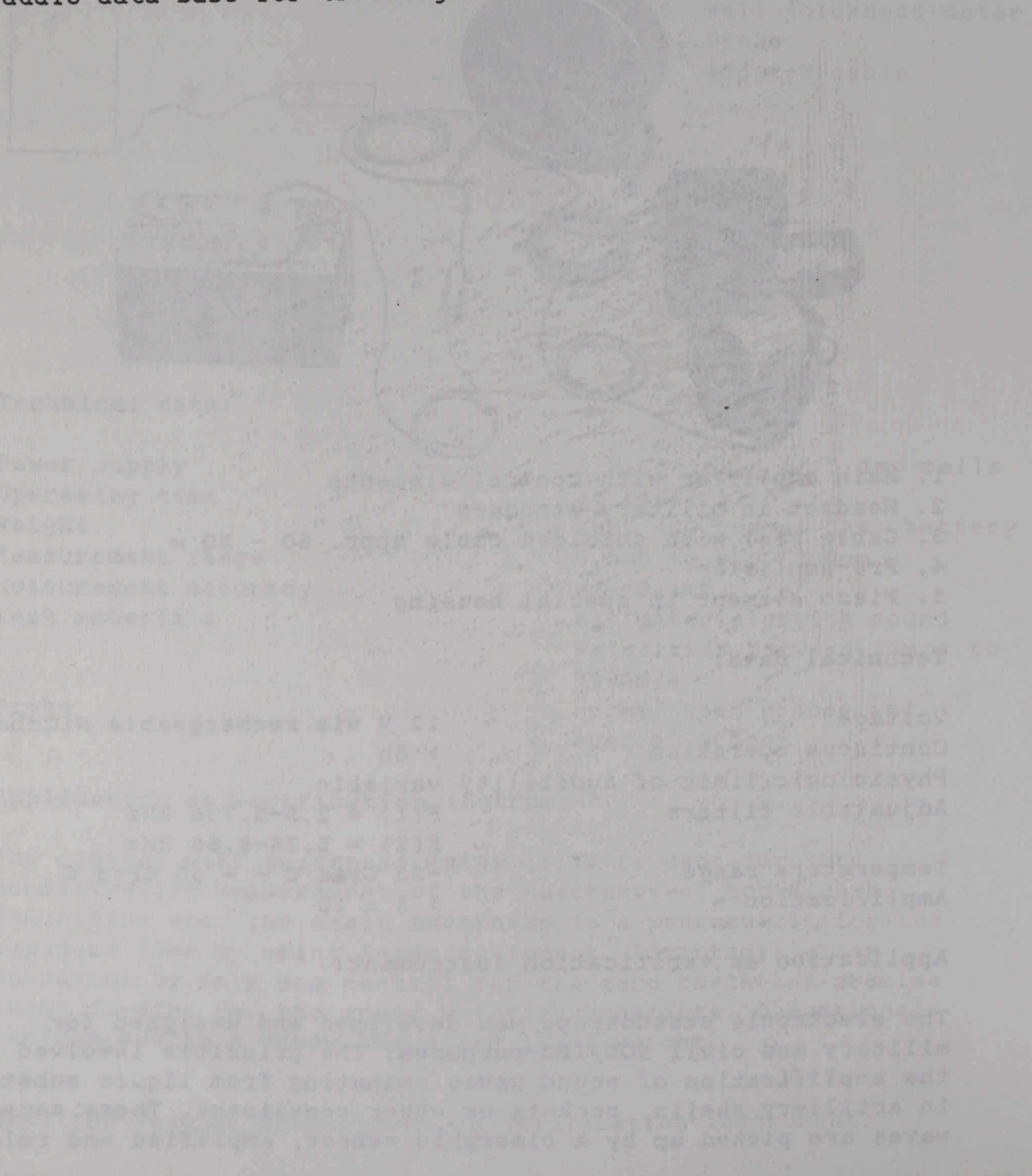
Application as verification instrument:

The electronic stethoscope was developed and designed for military and civil EOD/IED-purposes. The principle involved is the amplification of sound waves emanating from liquid substances in artillery shells, rockets or other containers. These sound waves are picked up by a bimorphic sensor, amplified and relayed

to the operator's headset via a cable. Via a normal tape recorder the hearing results can be stored and are suitable for training purposes. Advantages: Highest sensitivity, extreme high amplification, individual aural perception, adjustable filters, robust design, easy to handle.

Need for further development as verification instrument:

audio data base for training and evaluation



The use of radiography for CW verification under a CW convention

Radiography is a non-destructive testing technique whereby a beam of X or gamma rays is transmitted through a specimen. The image obtained is recorded on photographic material. By far the main use is for examining welded steel sections.

In the field of passenger safety, radiographic equipment has for years been employed at civilian airports to check luggage and other containers.

In connection with the elimination of old and obsolete chemical ammunition from World War I and II, radiography is used to identify warfare agents, thus reducing to a minimum any hazards when dismantling the ammunition.

Radiography can also be used effectively for verification purposes under a future CW convention and for checking filling apparatus. With its aid the following information can be obtained on the ammunition or technical installations to be inspected:

- identification of the internal technical structure of ammunition;
- identification of characteristics of ammunition (bombs, grenades, mines, hand grenades, rifle grenades, rockets, other missiles with thick or thin walls, bulk containers, bomblets, etc.);

- identification of the level in reaction vessels or in connecting lines of non-transparent apparatus.

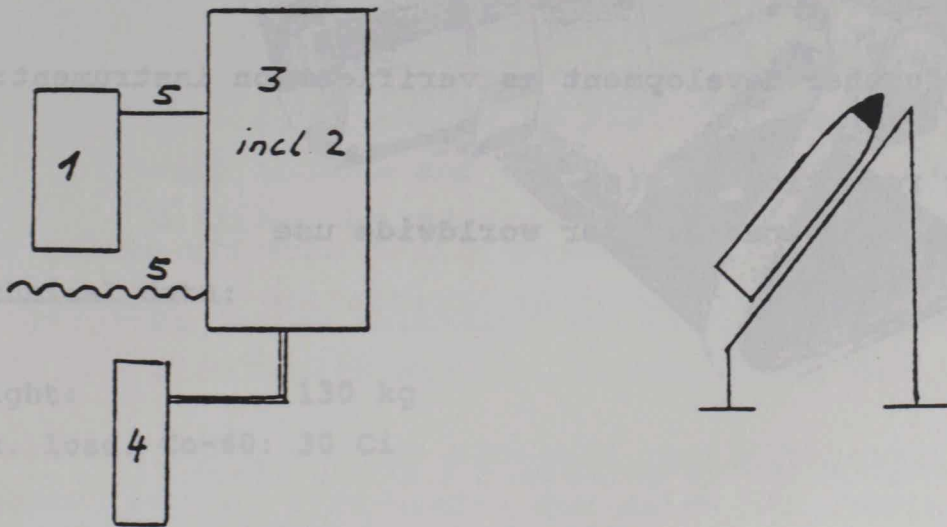
Note: Since the maximum film focusing distance of the X-ray unit is 80 cm, this is simultaneously the maximum diameter of the item to be examined. When using a gammamat, the wall thicknesses and maximum diameter of the item to be examined may be considerably larger. For

items with very thin walls, it may be sufficient to use an X-ray pulse/flash unit.

Safety rule:

It must be borne in mind that electronic triggers sensitive to high-energy radiation may have to be covered with a lead mask. The same applies to sensitive photocell gyrostatic pilots on guided missiles.

Instrument: X-Ray Equipment



- Basic components:**
- 1. control module
 - 2. high voltage generator
 - 3. X-ray tubehousing
 - 4. oil cooling pump
 - 5. connecting cables

Technical data:

- Connected load: 190 to 250 V; 50/60 Hz; 7 kVA
Power input: maximum 4.2 kW, continuous operation
Output voltage: 50 to 320 kV, steplessly adjustable
Output current: maximum 25 mA, depending on the type of X-ray tube, firmly set

Application as verification instrument:

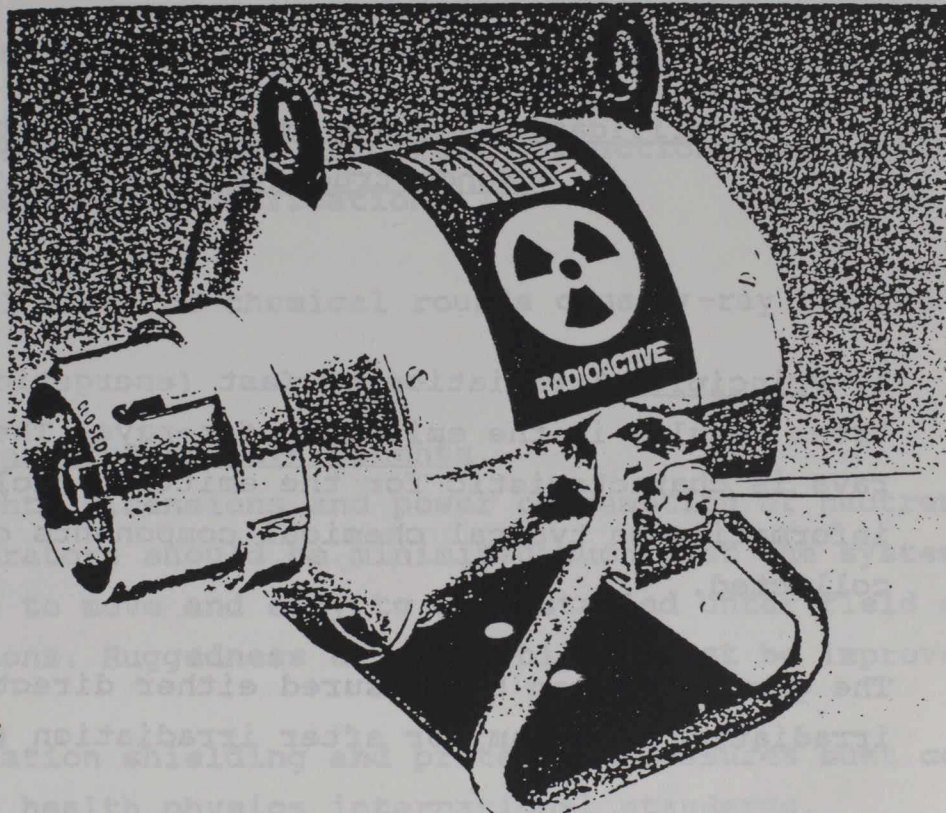
Application as verification instrument:

The mobile X-ray equipment is fully stabilized with an extremely high radiation power. This commercial equipment can be used for radiographic inspection of modern and old ammunition. It is well suited for the recognition of the interior technical structure of every kind of ammunition and the discrimination of liquid or solid charges.

Need for further development as verification instrument:

- further reduction in size
- mobile power generator for worldwide use

Instrument: Gamma-Ray-Projector for CO-60



Technical data:

Weight: 130 kg
max. load. Co-60: 30 Ci

Application as verification instrument:

The mobile gamma ray projector has a straight source channel and an eccentric shutter. This design of the shielding and use of uranium as a shielding material permit a maximum loading with Co-sources at low weight. The dose rate on the surface is below 200 mR/h at maximum load. This commercial gamma ray projector can be used for the nondestructive analysis of the interior technical structure of every kind of ammunition and the discrimination of liquid or solid charges.

Need for further development as verification instrument:

- a comparative gamma-ray-projector for iridium-192 is available. It has a max. load Ir-192 of 40 Ci and weighs only 12,3 kg.

Verification Method: Neutron Activation Analysis
- Nondestructive, Noninvasive -

1. Principle: Irradiation by fast (energetic) or thermal neutrons results in the emission of γ -rays. The energy of the γ -rays is characteristic for the emitting nuclei. In this way information on typical chemical components of a sample can be collected.

The gamma rays can be measured either directly during the irradiation (in beam) or after irradiation (off beam).

2. Basic considerations: Elements which are characteristic for chemical agents and which are rather rare in other weapons are: Phosphorus, Fluorine (nerve agents), Chlorine and Arsenic. Strong evidence of those elements must be considered as an indication of chemical agents.

3. Equipment needed:

- Neutron source
 - Neutron generator utilizing (d, t) reaction or
 - Neutron fission source like Cf-252
- Gamma ray spectrometer, including a multichannel analyzer for the identification of the characteristic gamma-rays
- Positioning and transportation devices (fast transport)
- Evaluation and analyzing unit (PC)

4. Limitation of the method

- No information on chemical structure
- In some rare cases interfering reactions are possible (nonunique identification)
- Steel cases of chemical rounds cause γ -ray background.

5. Necessary future developments

- Weight, dimensions and power consumption of neutron generators should be minimized such that the system is easy to move and easy to be installed under field conditions. Ruggedness and reliability must be improved.
- Radiation shielding and protection measures must comply with health physics international standards.

All goals under # 5 seem to be achievable within three to four years.

The mobile mass spectrometer as a verification instrument

The most universal, high-powered process for analysing organic chemicals, particularly chemical warfare agents, is mass spectrometry. Within the scope of verifying the non-production or use of chemical warfare agents, these substances must be detected in chemical plants or in the field. If such analyses are conducted in the laboratory, however, the samples to be analysed first have to be brought there. This takes time, during which samples remain unidentified, can alter or be confused, and it is practically impossible to determine the origins of the substances by means of targeted searches on the basis of suspicion.

For this reason a mobile mass spectrometer has been developed by the German armed forces which is capable of carrying out analyses directly and swiftly not in the laboratory but from an armoured vehicle in the field, thus enabling immediate responses. In the area of verification, such inspection teams can be used to conduct analyses of a specified depth and scope in chemical production plants. The results of these inspections are obtained directly on analysis and can be made known immediately.

Through this measuring system it is possible to detect evaporable organic chemicals which do not decompose at the temperature of 220°C required for analysis, by examining their mass spectra. Every substance has a characteristic mass spectrum which serves as a fingerprint enabling it to be identified. The data bank linked to the equipment therefore has a library of 50,000 spectra which can be automatically compared with the measured spectra. In addition to identification, conclusions can also be drawn about the quantity of a given substance by analysing signal intensity.

An accurate analysis requires accurate samples. Samples can be taken directly from the air around the plant or emitted from it, from surfaces, fittings, the floor or from the product flow. Special devices for taking samples are available.

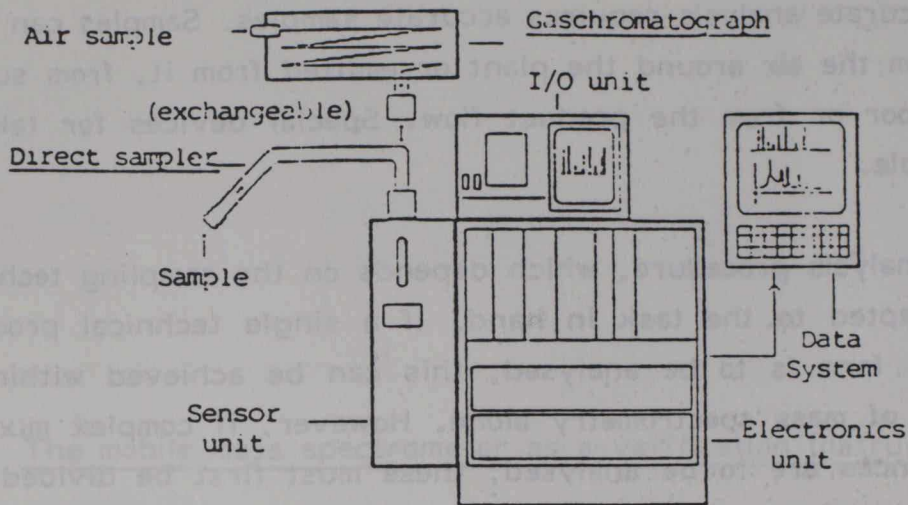
The analysis procedure, which depends on the sampling technique used, may be adapted to the task in hand. If a single technical product available in sample form is to be analysed, this can be achieved within one minute by means of mass spectrometry alone. However, if complex mixtures of various substances are to be analysed, these must first be divided into their individual components by means of gas chromatography, before they can be identified through the mass spectrometry process. This type of analysis takes around 5 to 20 minutes and reveals levels amounting to parts per billion as regards substances in the air; in the case of samples taken from surfaces or products, mere nanogramme levels are necessary.

Inspectors experienced in this analysis technique can obtain precise results by applying standardized sampling and analysis procedures to specific tasks.

The questions to be solved by the teams of inspectors must be discussed. The software for the measuring system can be adapted to these tasks; for example, all identified substances can be listed after automatic evaluation, or searches can be conducted for specific substances only, with a view to detecting and recording only their presence or absence.

The existing GC MS MM1 mobile system is installed in vehicles, for example, minibuses, jeeps, for use in the field. This is a relatively heavy piece of equipment which has been specially designed for use in tanks. In principle, however, it can be used as a verification instrument. At the moment this device is being developed further and reduced in size so that it can be used for taking environmental measurements. It will weigh about 40 kg and will thus be simple to transport. When the need for these devices in the verification process has been established, a special optimized measuring system can be developed for use by the inspection teams on this basis.

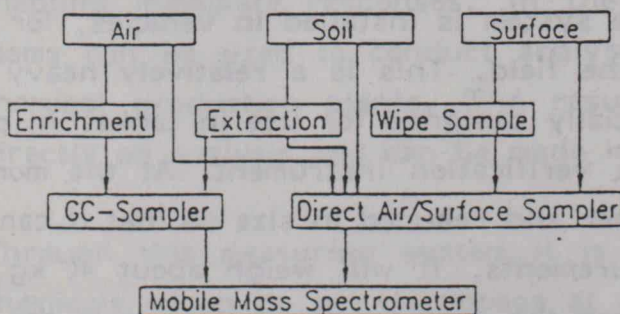
THE MOBILE MASS SPECTROMETER SYSTEM MM1



SPECIFICATIONS

- Quadrupole mass spectrometer (mass range 1-400 u), rugged (meets military specifications), easy to operate.
- Adjustable to specific inspection requirements.
- Detection and identification of organic chemicals, including CW agents and other scheduled chemicals, pesticides, etc. in selected ion monitoring (SIM) mode or by scanning of series of mass spectra.
- Various probes available for sampling of vapour, dust, aqueous solutions and surfaces of solid materials, directly or after enrichment and clean-up.
- Detection limits: 1-10 ng absolute; 50 ppb in air (full spectra from 100 ppb of sarin after 2 minute enrichment on Tenax); 10 ng/cm² from non-absorptive surfaces.
- Data system with variable analytical procedures; spectra library.
- Total weight app. 200 kg, power consumption 600 W; MIL-specified electronics.

APPLICATIONS



- Variety of procedures selectable by inspection team.
- Gas chromatographic (GC) separation of components of complex mixtures.
- Fast selective detection, negative verification and semiquantification at appropriate intrusion levels.
- Immediate results on-the-spot.

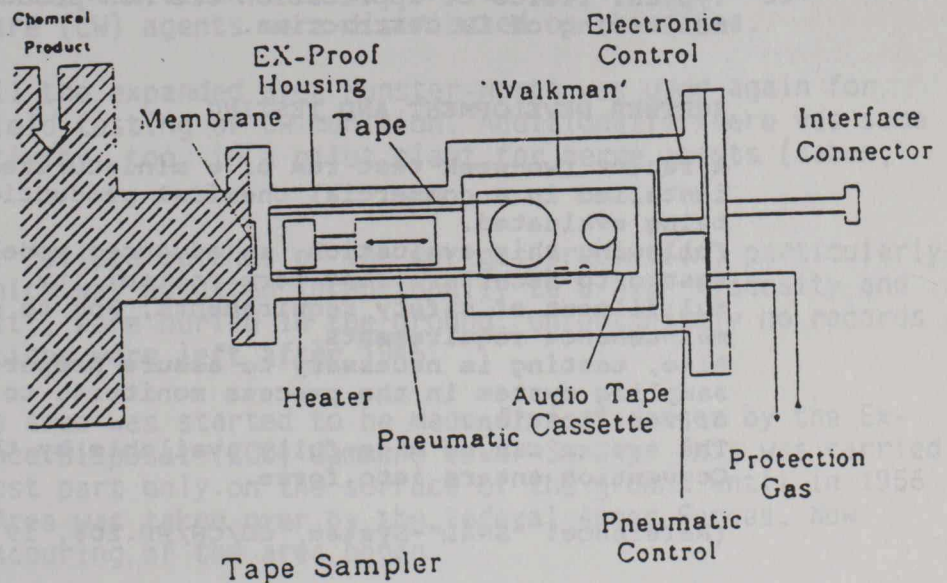
FURTHER DEVELOPMENT

- Reduction of weight and size (40 kg, 50x50x40 cm)
- Standardization of sampling procedures
- Development of software dedicated to non-intrusive on-site inspections.

CHEMICAL PROCESS MONITORING BY AUTOMATED MICRO-SAMPLING ON MAGNETIC TAPE AND RETROSPECTIVE ON-SITE EVALUATION

APPROACH

- Storage of microgram amounts of samples from a chemical process along with relevant data (e.g. date/time, flow rate, temperature) on a magnetic tape cassette, at randomized or programmed time intervals.
- Retrospective analytical evaluation of samples on-site, at appropriate minimized intrusion level, for absence of undeclared or presence of declared scheduled organic chemicals during routine inspections.



SAMPLING MECHANISM

Storage ("writing") of samples is performed by short contact of a heater stamp with the magnetic tape, allowing the tape to be in contact with the chemical diffusing through a membrane into the tape material (the polymer turning into a rubbery state). Removal of the heater causes the tape to cool down instantly (the polymer turning into a glassy state), thus preserving ("freezing") the sample.

EVALUATION

Evaluation ("reading") of samples requires the sample to be thermodesorbed from the tape by a heater-interface prior to introduction into the analytical instrument. Preferably the samples are analyzed in a flexible way using a mobile mass spectrometer (MM1) in the selected ion monitoring mode or through confirmatory scanning of limited mass ranges. Optionally, other analytical methods could be used in certain cases.

CAPACITY

A standard audio tape cassette (90 m) has a capacity of more than 2000 samples.

STORAGE TIME

Depending on physical and chemical properties (volatility, thermostability) of the sampled compound, a storage time of several days for freon, 19 months for sulfur mustard and 28 months for thiodiglycol and dimethyl methylphosphonate has been observed without significant sample losses.

APPLICATION

Typical fields of application are non-production verification and monitoring of CW destruction.

FURTHER DEVELOPMENT AND TESTING

A recent two-week test run of a miniaturized tape sampler system installed in a commercial chemical production plant is currently being evaluated. Following this evaluation, an advanced model will be developed and tested to ascertain long-term reliability, tamper-resistance and fulfillment of safety requirements, and to determine and minimize maintenance requirements. Also, testing is necessary to assure proper placement of the sampling system in the process monitored to be effective in terms of verification. The system can be made fully available by the time the CW Convention enters into force.

(Reference: "SNAL"-System, CD/CW/WP.204, 19 July 1986)

Incineration Plant for Toxic Waste of the Federal Armed Forces
Defence Science Agency for NBC Protection* in Munster

Introduction

The Federal Republic of Germany does not possess chemical weapons. However, the Munster area as a former CW-production and testing ground - as well as some other areas in the Federal Republic - is still contaminated with old chemical agents dating from World Wars I and II.

The removal concept for found ammunition includes search, demilitarization and destruction of the chemical agent contents through incineration at temperatures of 1000-1200 °C. Flue gas from combustion is scrubbed and emissions are continuously monitored. The Munster incineration plant is in full operation since 1980. As its destruction capacity is limited to approx. 70 t a year, it is planned to build an additional destruction facility on the basis of a rotary kiln.

1. HISTORY

In World War I a part of the present Training Area Munster-North was used for production and field testing of chemical agents. After the war, on October 24, 1919 by a powerful explosion all buildings, 1000 t of warfare agents, 1 million chemical shells and 40 tank waggons with chemical warfare (CW) agents were distributed on this area.

In World War II the expanded area Munster-North was used again for filling and field testing of CW munition. Additionally there was some production activity, too, in a pilot plant for nerve agents (tabun, sarin).

During the War failure batches of the war gas production, particularly mustard gas which was adjusted intentionally to a high viscosity and called "Zählost", were buried in the ground. Unfortunately no records about such actions were left after 1945.

After 1948 the area was started to be made free of danger by the Explosive Ordnance Disposal (EOD) Command Lower-Saxony. This was carried out for the most part only on the surface of the ground until in 1956 the Training Area was taken over by the Federal Armed Forces. Now systematical scouring of the area began.

2. REMOVAL CONCEPT FOR FOUND AMMUNITION

The technical steps for an ultimate elimination of the dangers by chemical duds and contaminations in the ground which are still being faced in the Munster area are the following:

1. Searching and discovering,
2. Removal and transport,
3. Storage,
4. Demilitarization of the CW ammunition and
5. Destruction of the chemical agent contents.

The steps 1. to 4. are in the responsibility of the Munster Training Area Command, which has available a demilitarization plant with a team of EOD experts. It is their task to separate fuzes and explosives from the chemical ammunition. The chemical agents, waste produced during demilitarization and empty shells are filled into polyethylene barrels and taken into storage up to incineration. The Federal Armed Forces Defence Science Agency for NBC Protection is responsible for step 5: the environmentally acceptable incineration of the chemical agents and final disposal of the burned residues.

3. FUNCTION OF THE INCINERATION PLANT (see functional diagram)

3.1 Incineration of chemical agents

The incineration plant of WWDBw ABC-Schutz, planned since 1975 and taken in full operation since 1980 is being operated as a batch-type double chamber furnace. This installation is unique in its function and was primarily designed to manage the viscous mustard gas problem. It is the only incinerator for thermal destruction of chemical agents in Western Europe.

The daily destruction rate during two overlapping working shifts, resulting in a total processing time of 12 hrs, amounts to 350 kg mustard gas or about 70 tons a year.

Before its incineration the initial material will be analyzed to determine problematic components, mainly arising from the presence of arsenicals. Based on the analytical results suitable batches of toxic waste material are put together and provisions for a most effective waste water and effluent air treatment are possible.

The opened polyethylene containers are placed on one of the charging waggons which are covered with high-temperature proof stones. At first the waggon is pulled through a gas lock into the evaporation chamber. Here, at a temperature of 300°C and in an inert gas atmosphere ($N_2+CO_2+H_2O$) the chemical agent vapours are released during 10 to 12 hours and introduced through an insulated duct into the main incineration chamber.

In this chamber equipped with highly fire-proof and chemical resistant brick walls mustard gas, for example, is oxidized at a temperature of 1000° to 1200°C within a reaction time of 2 seconds to the components sulfur dioxide (SO_2), hydrogen chloride (HCl), which still imply an environmental burden, plus carbon dioxide and water.

Then the charging waggon with inevaporable organic chemical remnants and metal parts is displaced into the burn-out chamber. Particularly metal parts, e.g. shells are annealed in this chamber in air at 1000°C over 12 to 18 hrs. The effluent air from this chamber is conducted through the main incineration chamber for final combustion of toxic components.

Charging area and displacement room are adjusted to an underpressure (0.5 to 1.0 mbars) against atmosphere to prevent any egress of toxic compound to the exterior.

3.2 FLUE GAS SCRUBBING

Flue gas from chemical agent incineration at first is cooled down to 80°C by injection of water into the cooling (quench) tower. By passing two washing towers (scrubbers) arranged one after the other the noxious gases SO₂ and HCl are eliminated from the flue gas with additional water. By simultaneous injection of sodium hydroxide (NaOH) a fixed pH profile can be achieved. After passage of a waste water neutralizer the highly toxic blister agent mustard has been transformed into such harmless salts like sodium sulfate and sodium chloride which can be released unobjectionably into the municipal waste water sewer.

The scrubbed flue gas leaves the incineration plant through a 30 m high stack, not without further aerosol elimination in an aerosol separator.

Sampling probes and analyzers for continuous monitoring the emissions with reference to the noxious components SO₂ and HCl as well as hydrocarbons (as a total) and dust (including arsenic trioxide) are attached to the stack. The indicated values are transmitted to recorders installed in the switchboard panel of the operation control center.

The recorded values are far below the legally allowed limits of exhaust air emission.

3.3 PRECIPITATION OF ARSENIC COMPOUNDS

Arsenicals found in the war gas mixtures are requiring additional operational steps:

All washing waters and collected aerosols with arsenical compounds in it have to be jointly subjected to a subsequent oxidation and arsenic precipitation.

The mineralized arsenic (III)-compounds are oxidized to sodium arsenate by reaction with potassium permanganate. Addition of ferric chloride leads to an effective flocculation and dragging effect of the originating ferric hydroxide, accompanied with precipitation of ferric arsenate. This compound is being dehydrated by a filtration step and can be deposited in an old salt mine.

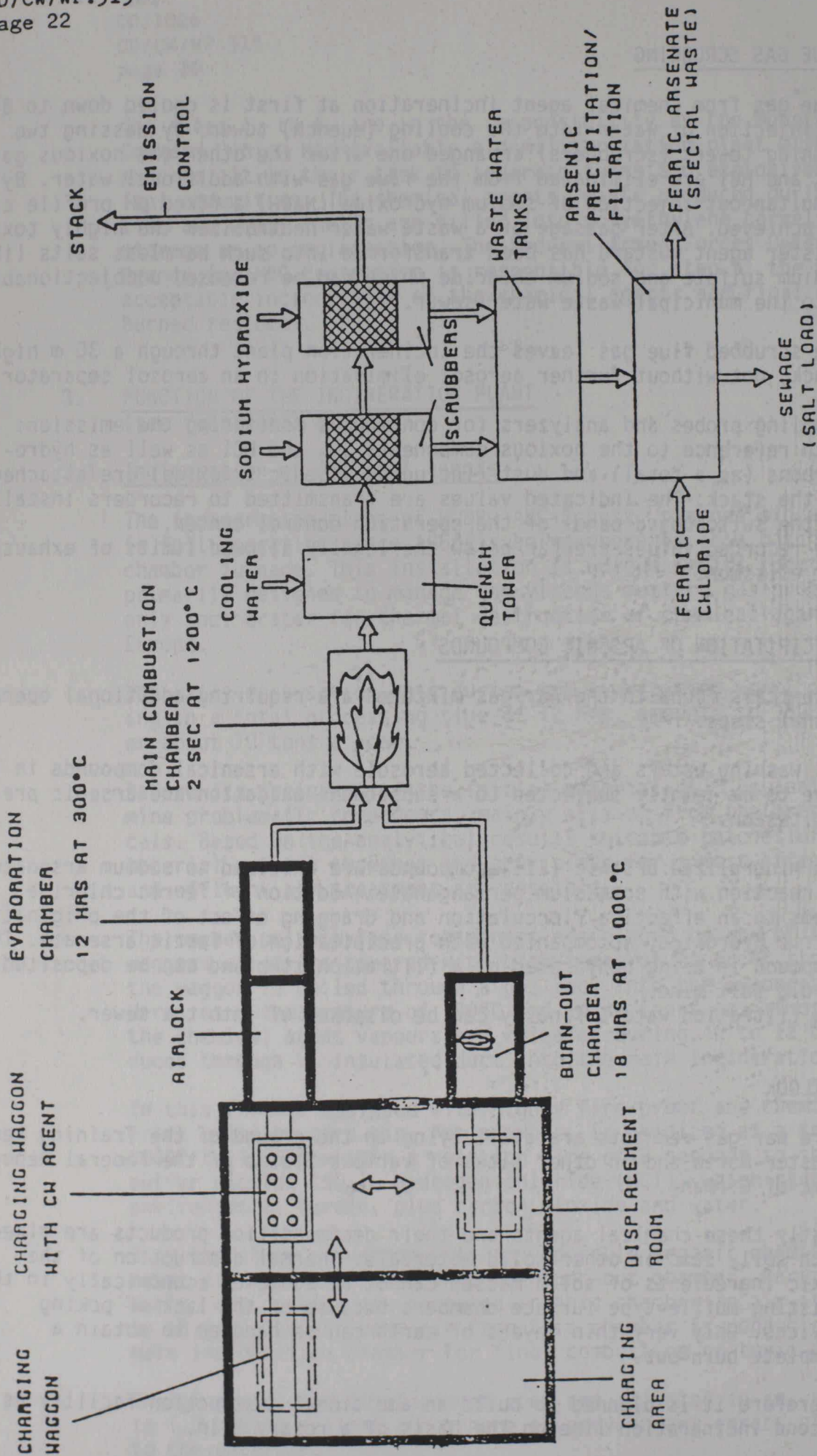
The filtration waters finally can be disposed of into the sewer.

4. OUTLOOK

More war gas remnants are still lying in the ground of the Training Area Munster-North and on other sites of various States of the Federal Republic of Germany.

Mostly these chemical agents and their decomposition products are mixed with soil, sand or other solid materials. Thermal destruction of the toxic ingredients of solid masses cannot be achieved economically in the existing muffle-type furnace chambers because of the lack of poking devices. Only very thin layers of earth can be handled to obtain a complete burn-out.

Therefore it is planned to build an additional destruction facility as a second incineration line on the basis of a rotary kiln.



FUNCTIONAL DIAGRAM OF INCINERATION PLANT



FUNCTIONAL DIAGRAM OF INCINERATION PLANT

CONFERENCE ON DISARMAMENT

CD/1029
CD/CW/WP.318
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ENGLISH
Original: FRENCH

FRANCE

REPORT ON A TRIAL CHALLENGE INSPECTION

1. INTRODUCTION

France considers that challenge inspection (or inspection on request), anywhere, at any time, without right of refusal, constitutes the keystone of the future convention on the prohibition of chemical weapons.

The legitimate concern for security that is felt by any sovereign State has led the French Government to consider how this triple obligation could be applied in practice on its territory, in all cases.

As has been clearly shown by the trials carried out by several countries, and in particular by the United Kingdom, understanding and development of the relevant parts of the convention can be greatly facilitated by the lessons to be drawn from trial inspections.

In this spirit, France carried out, on 6 and 7 June 1990, an initial trial challenge inspection exercise at a military facility that is not particularly sensitive in character. It is therefore planned shortly to carry out further inspections of this type at facilities that are vital to national security.

The conduct of this trial inspection and the first comments that may be made on the procedure followed are presented in this document.

2. OBJECTIVES

The objectives of this first exercise were:

- to evaluate the security implications of challenge inspections for a military facility;
- to identify means of protecting legitimate national security interests, in particular sensitive information unrelated to chemical weapons, while at the same time demonstrating respect for the convention;

- to draw the necessary lessons for improvement of the provisions of the convention relating to this type of inspection from the standpoint of each party concerned: the international Organization and the Inspectorate, the challenging State and the challenged State;
- to develop national arrangements for fulfilment of the obligations arising from the convention while facilitating the work of the various teams during an inspection of this type.

3. DESCRIPTION OF THE FACILITY

The inspection took place at an army ammunition depot having an area of 80 hectares. It includes one sector with administration and accommodation buildings and another sector with 100 ammunition stores and a multipurpose workshop. The depot has several road and railway access points. It is entirely enclosed by security fencing.

4. COMPOSITION OF THE TEAMS

The representation of the various parties was as follows:

(a) The inspection team consisted of:

- one team leader;
- one "sensitive point" specialist;
- one ammunition specialist;
- one chemist/expert in chemical warfare agents;
- one specialist in the inspections to be carried out under the future treaty on conventional forces in Europe (CFE).

In addition, there was a technical team composed of:

- a chemist specialized in the taking of samples and the detection of chemical weapons;
- an assistant for the sampling;
- two gamma radiography equipment operators.

(b) The challenged State had appointed two members of the national authority, in this instance:

- a representative of the Ministry of Foreign Affairs;
- a member of the French delegation at Geneva.

(c) An observer for the challenging State.

(d) A team of escorts appointed by the facility.

(e) Observers for various ministries and other bodies.

5. PREPARATION FOR THE INSPECTION

The exercise was conducted on the basis of the relevant provisions of the rolling text (CD/961 of 1 February 1990), including the Protocol on Inspection Procedures, taking into account the results of the trial inspections carried out by other countries.

It was assumed that the national authority was given 12 hours notice of the inspection. The notification indicated the point of entry, the time of arrival, the list of inspectors, and the name of the observer for the challenging State. The exact location of the site to be inspected and the reason for the inspection, namely suspected storage of chemical weapons, were deemed to have been notified at the point of entry.

The team of inspectors had been assembled several days beforehand to receive specific instructions concerning the rolling text and the conduct of challenge inspections. At that time each member of the team was given a guide outlining the rights and duties of inspectors.

The depot's commanding officer had previously been informed of the provisions of the rolling text and had been requested to take the necessary arrangements to select and train the escorting personnel and to draw up special instructions for all the personnel of the facility.

6. CONDUCT OF THE INSPECTION

The duration of the exercise was nine hours, spread over three half-days.

6.1 BRIEFING

The team of inspectors was met at the site by representatives of the national authority and the director of the facility. At the start of the initial meeting, the head of the team of inspectors indicated the terms of reference of the inspection.

The director then gave an introduction to the facility, which was described in a dossier given to the inspectors, and outlined the security rules to be observed during the visit to the area and to the ammunition stores.

The inspectors then asked a number of questions. Some of these were considered, either by the director of the facility or by the representative of the national authority, to be unrelated to the purpose of the inspection and were therefore not answered.

6.2 THE INSPECTION PLAN

The inspection plan, prepared by the inspection team without the presence of the observer, was then submitted, for any necessary amendments, to the director of the facility and the representatives of the national authority. The plan was modified, as required, during the course of the inspection, with the agreement of all the parties.

6.3 VISITS TO THE SECTORS

The site was not secured and the access points were assumed to be supervised by appropriate means. The teams then made a complete tour of the site by coach and this first visual inspection enabled them to note external signs of possible interest for the subsequent inspection.

For the first part of the inspection the team of inspectors was divided into two subteams:

- One subteam visited the administrative sector, where it was allowed access to the records. It then visited the accommodation sector (living quarters, infirmary, first aid facilities, etc.).
- The other subteam checked the 10 storage warehouses, basing its choice either on the external appearance of the buildings or on the type of ammunition stored. Specialized workshops, the motor vehicle workshop and various sheds were then also visited.

During the second part of the inspection, the entire team remained together and carried out further visits of the stores.

The inspectors had "polaroid"-type cameras. Photographs were taken, at the request of the inspectors, either by a member of the facility's personnel or by a member of the national authority. On each occasion, two photographs were taken, one for the inspectors and the other for the facility.

Only the escorting team carried radio equipment, which was needed for communication between the various groups.

Throughout the inspection, the inspectors addressed questions to the escorting personnel appointed by the director of the facility at the initial meeting. The representative of the national authority intervened, where necessary, during these discussions.

The observer for the challenging State accompanied the inspection team (or the subteam visiting the stores) throughout the visit. However, he was not allowed to enter certain stores or to take notes.

6.4 SAMPLING AND ANALYSES

(a) At the request of the inspectors, several types of ammunition were transferred to a specialized workshop for the packing to be opened and for visual observation of the characteristics of the contents.

(b) The sampling team had at its disposal the following:

- two field devices for detection of chemical weapons
- a sampling kit composed of three items:

- * a case with equipment for taking samples of liquids, gases and solids;

- * a case for the transport of samples to analysis laboratories while maintaining them at a temperature below 0°C;
- * a "power" case containing thermal welding equipment and transformers for converting any source of electrical energy to 12 volts. Connection of this case with the transport case increases the range of the latter.

(c) The following samplings and analyses were carried out by means of this equipment:

- Air samples were taken with a "Tenax" tube in several buildings and TCT-GCMS analyses were carried out;
- Water samples were taken from a pond and from a tank and extracts were analysed by gas chromatography with NPD and FID detectors;
- A decontaminant solution was analysed by the MS and NMR methods and by potentiometry.

All the analyses were carried out in a laboratory outside the site.

(d) One piece of ammunition was examined by gamma radiography, but a rather long exposure (one to one and a half hours) was needed, with a radiological security radius of 150 metres.

6.5 CONCLUSIONS OF THE INSPECTION

The inspection team considered that the inspection procedures followed were adequate to detect with great certainty the presence of chemical weapons on such a site.

The team prepared a brief report which mentioned the various verifications carried out and indicated that the investigations had not led to detection of the presence of chemical weapons on the site.

7. COMMENTS AND PROPOSALS

7.1 ANNOUNCEMENT OF INSPECTION

Although the shortness of the period between notification of the inspection to the inspected State and the arrival of the inspection team at the site is one of the factors that determines the effectiveness of the inspection, the challenged State must be allowed a minimum amount of time to make all the necessary arrangements for taking charge of the inspectors at the point of entry and preparing for their reception at the site.

7.2 THE INSPECTION PLAN

After the inspection plan (which must be fairly flexible) has been prepared by the inspection team (possibly in the presence of the observer, see para. 7.5 below), it is important that it should be discussed with the director of the facility and the representative of the national authority, so that any necessary adjustments may be made and the transport and communications arrangements may be well co-ordinated.

In particular, whether because of the large number of buildings on the site or in order to protect confidential information, it is useful to draw up a system providing for access to a limited number of buildings only, that will be dissuasive for the purposes of the site inspected and reasonable in terms of the duration and cost of the inspection. The system of selective or random access proposed by the United Kingdom (CD/1012 of 11 July 1990) meets these two requirements.

7.3 SECURING THE SITE

Sites that may be subjected to a challenge inspection will in most cases probably be fence-enclosed facilities. Even where this is the case, it seems difficult to secure the site completely, unless there is a large number of inspectors and assistants or there are appropriate sealing devices, which will probably be very costly.

The question therefore arises whether securing the site at the start of the inspection is necessary. In the case of this trial inspection, considerable quantities of ammunition, which could have been chemical weapon ammunition, might, within a 12-hour period, have been moved out by rail. The same applies to compromising records. It is conceivable that a country having to conceal a prohibited activity would take the necessary measures to evacuate the site on time.

In order to detect a prohibited activity, therefore, it is preferable to rely on the difficulty of cleaning up a chemical storage site and on the evaluation of secondary characteristics of the facility that may be linked with an earlier presence of chemical weapons.

7.4 ON-SITE TRANSPORT AND COMMUNICATIONS

The logistical problems must not be underestimated. Separation of the inspection team into two subteams and allowing the sampling team and perhaps the team responsible for non-destructive analyses to operate independently make it necessary to have considerable transport and communications facilities, as well as sufficient escort personnel. It would seem preferable to set up a central co-ordination post with communication links to the vehicles, to the escorting personnel and, if necessary, to the inspectors - although the latter should in fact have their own means of communication. It is also necessary to provide for the movement of ammunition either within a warehouse or to a specialized workshop.

The obligations of the challenged State in the matter of transport, communications and provision of premises and specialized equipment must be clearly established in order to avoid any delays or controversy.

7.5 THE OBSERVER

The presence of the observer is necessary as a confidence-building measure, but his activities must be clearly and specifically defined and delimited in the inspection procedures.

The observer may be present during the briefing on the site by the director of the facility. He should not attend the question-and-answer session following the briefing, since any refusal of the director to answer a

question might provide him with information. However, he should participate in the drawing-up of the inspection plan or be informed by the chief of the inspection team concerning the proposed inspection plan and any later modification of it. He should also be entitled to make suggestions which the head of the team will be free to accept or reject.

It is recommended that a representative of the national authority and a member of the escorting team should remain continuously with the observer, possibly using a separate vehicle. The observer should have access only to the premises and places authorized by the representative of the national authority.

The observer's only interlocutors should be the head of the inspection team and the representative of the national authority.

7.6 RESTRICTIONS ON ACCESS

Only ordinary measures restricting access were evaluated during this exercise, e.g. denial of access to the detailed stock inventory, removal of notices and of certain exposed items, locking-up of documents and use of non-destructive methods for examining ammunition.

All these ordinary measures must be reviewed for each type of facility likely to be subjected to a challenge inspection.

8. CONCLUSIONS

From this first exploratory trial of a challenge inspection the first lessons can be drawn regarding the validity of this type of inspection in the case considered and the constraints it imposes on the inspected State.

For the type of facility chosen, the inspection methods followed would make it possible to confirm with great certainty the non-presence of chemical munitions. It will be necessary, however, to develop and test mobile equipment for analysing samples and equipment for non-destructive testing.

It will be necessary accurately to define the role and the rights of the observer.

The State party must take appropriate measures in order to meet the requirements of security at each facility liable to be inspected. The cost of these measures is still difficult to evaluate but it is certainly not negligible.

It will be necessary to carry out other trials of this type, particularly at highly sensitive facilities.

The first step in the investigation is to determine the nature of the problem. This is done by interviewing the complainant and the person who is alleged to have committed the offense. The investigator should also review any evidence that is available, such as photographs, documents, and physical evidence. Once the nature of the problem is determined, the investigator should develop a plan of action. This plan should include the steps that will be taken to investigate the problem, the resources that will be used, and the timeline for the investigation. The investigator should then implement the plan and report the results of the investigation to the complainant and the appropriate authorities.

It is recommended that a representative of the complainant be present during the investigation. This representative should be someone who is familiar with the complainant and the person who is alleged to have committed the offense. The representative should be able to provide the investigator with any information that the complainant may not be able to provide. The investigator should also interview the person who is alleged to have committed the offense. This interview should be conducted in a private setting and should be conducted by a trained investigator. The investigator should ask the person a series of questions to determine if they committed the offense. The person should be given the opportunity to explain their actions and to provide any evidence that they may have. The investigator should then report the results of the interview to the complainant and the appropriate authorities.

The investigator should also review any evidence that is available, such as photographs, documents, and physical evidence. This evidence should be reviewed in a private setting and should be reviewed by a trained investigator. The investigator should ask the person a series of questions to determine if they committed the offense. The person should be given the opportunity to explain their actions and to provide any evidence that they may have. The investigator should then report the results of the review to the complainant and the appropriate authorities.

RECOMMENDATION

The investigator recommends that the complainant be satisfied with the results of the investigation. The investigator should also recommend that the person who is alleged to have committed the offense be disciplined. The investigator should also recommend that the complainant be provided with any evidence that is available. The investigator should also recommend that the person who is alleged to have committed the offense be given the opportunity to explain their actions and to provide any evidence that they may have. The investigator should then report the results of the investigation to the complainant and the appropriate authorities.

CONFERENCE ON DISARMAMENT

CD/1030/Rev.1
CD/CW/WP.319/Rev.1
10 August 1990

Original: ENGLISH

CANADA

REPORT ON A NATIONAL TRIAL INSPECTION

INTRODUCTION

In 1988, the Ad Hoc Committee on Chemical Weapons at the Conference on Disarmament encouraged a programme of national trial inspections in support of the negotiations in Geneva. In November 1989, the first Canadian trial inspection was carried out at a simulated single small-scale facility at the Defence Research Establishment, Suffield, reported as CD/987. As a continuation of its national effort, a second Canadian trial inspection was carried out at a pharmaceutical facility. This inspection involved consumption of a chemical which, for the purposes of the inspection, was designated as a Schedule 2 chemical.

Routine verification of the consumption of a declared Schedule 2 chemical will require information concerning the arrival of such chemicals at the facility, their storage, their reaction or other processing and their final disposal, either through conversion or removal from the facility through sales, etc. A facility agreement, once negotiated, will define the parameters of "arrival" and "disposal" of declared Schedule 2 chemicals. Inspectors will be guided in their activities by this agreement. The basis for the provision of information by the facility will be established in the Chemical Weapons Convention (CWC), particularly in relation to the details of the required declarations.

Information "beyond the walls" of the facility will not necessarily be available to inspectors - information, that is, concerning suppliers to, or clients of, the facility, on the basis that such information:

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- (a) goes beyond that relevant to the routine inspection of Schedule 2 declarations produced or consumed at that facility; and
- (b) may compromise confidential business transactions, to the detriment of the company's legitimate commercial interests.

INSPECTION AIMS

The purpose of the Canadian trial inspection was:

- (a) to involve a commercial facility in the national trial program by examining the value of using an audit trail to verify compliance;
- (b) to assess the impact of an audit trail inspection on confidential business information; and
- (c) to investigate the use of quality control procedures and equipment as they might be required and available in support of such inspections.

INSPECTION TYPE

The trial inspection was carried out in a multipurpose pharmaceutical site at the MERCK FROSST CANADA INC. facilities in Pointe Claire, Quebec. The inspection followed the procedures associated with a routine inspection for verification of annual declarations of Schedule 2 chemicals.

INSPECTION TEAM

The inspection team was composed of a team leader and four inspectors. It included an industrial chemist, two analytical chemists an organic chemist and an experienced pharmaceutical auditor. There were also a number of observers from government departments as well as one from the Netherlands Ministry of Foreign Affairs. Two of the observers represented the National Authority.

ADVANCE ACTIVITIES

Planning for the trial involved the visit of a smaller group to the facility in advance to define the purpose of the inspection and make arrangements. Emphasis was placed on examination of the audit trail for consumption of a simulated Schedule 2 chemical and on the use of the Quality Control Laboratory in the facility. A partial Inspection Agreement was drawn up following the requirements for a

routine inspection to verify the annual declaration of a Schedule 2 chemical. The chemical selected as a pseudo Schedule 2 chemical for purposes of the trial inspection was methyl-p-hydroxybenzoate (common name: methyl paraben). Methyl paraben is consumed at the facility by compounding it into an intermediate product and 10 pharmaceutical products. All pharmaceutical products contained a low percentage of the chemical (less than 5 %) which was considered to remove it from further concern.

In the absence of a full negotiated facility agreement, the company provided information on a voluntary basis about manufacturing methods and types of products manufactured at the facility. A flow chart described the path of the chemical through the facility, from receiving to eventual release for sale. Floor plans were provided to show the areas relevant to the consumption of the Schedule 2 chemical for routine verification purposes. An organizational chart was also provided in advance, showing the names and responsibilities of company officers.

The site was a facility where a variety of mixtures of chemicals could be prepared and this was clearly documented in the plans received. Access was provided to the Receiving, Quarantine, Chemical Dispensing and Liquid Preparation (Manufacturing) areas and to the Quality Assurance Laboratory.

OPENING CONFERENCE

An opening conference was held to inform all participants of final details of the trial and to carry out last minute exchanges of information. All members of the inspection team (including observers) were required by the company to sign a non-disclosure agreement prior to the opening discussion. The company also required that inspectors and observers adhere to the code of Good Manufacturing Practice (GMP) (safety, clothing, etc.), as established in the Standard Operating Procedures of the company and the GMP Guidance of the Health Protection Branch of Health and Welfare Canada. The purpose and timing of the visit was communicated to company personnel only one day before the event to give the inspection a "short notice" character.

INITIAL TOUR

Immediately after the opening conference, the team received a tour of those parts of the facility relevant to the inspection. Except for flammable solvents, which were stored in the open, all other relevant chemicals were stored in the warehouse building and were available for inspection

as necessary. Due to the lack of the necessary safety provisions, it was clearly evident that volatile Schedule 1 chemicals could neither be produced nor stored in the facility.

After the general tour, the team was split into two groups: one to carry out a more detailed physical inspection of the facility, to examine quality control procedures, and to carry out sampling and analysis; the other to carry out the audit of records concerning the receipt and consumption of methyl paraben.

INSPECTION OF FACILITIES

The facility was found to be a typical pharmaceutical formulation plant. Quality Control and Quality Assurance (QC/QA) analysis was carried out in accordance with United States Pharmacopeia (USP) procedures and internal company protocols. Most final products containing methyl paraben were not routinely analyzed for their methyl paraben content. Control of the content was normally carried out by the careful weighing of the material that was added to formulations or by volumetric measuring of stock solutions.

Samples of every batch of each product made during the past 10 years were retained in storage for legal purposes. A small preparation laboratory was found to use reaction vessels up to 22 L in size and had a walk-in fume cupboard. This area was judged by the inspectors as unsuitable for the preparation of Schedule 1 chemicals.

The main analytical laboratory was equipped with UV spectrophotometers, a variety of high-pressure liquid chromatography units with photodiode array detectors, gas chromatographs, dissolution testers, an atomic absorption spectrometer, a small electron microscope, equipment for performing moisture content determinations and other general laboratory equipment. An infrared spectrophotometer was available, but was not seen during the inspection due to reconstruction underway in that part of the laboratory. Neither nuclear magnetic resonance spectroscopy nor mass spectroscopy was available on site. Facility representatives indicated that these techniques could be employed by arrangement with a nearby research laboratory.

Inspection of the liquids area revealed the presence of a number of reactors (2400, 2300 and 1200 litres) and mixing tanks. A close inspection of this equipment confirmed that volatile Schedule 1 chemicals could not be produced with them. However, it appeared feasible to prepare solid toxic chemicals as well as precursors in the area. There appeared to be a capability to handle allergenic and other physiologically active materials in separate rooms reserved

for such preparations, and some safety equipment was available there. However, only very simple chemical processes could be carried out.

AUDIT ACTIVITIES

The records made available to the inspection team included: raw materials (quantity received); manufacturing records (registers); and sales. The team was not denied access to any records and few attempts were made by the company to black out information. The audit followed methyl paraben from Receiving/Quarantine through compounding, packaging and sales in terms of "total in. total out", while, one end product and the intermediate product were followed in detail.

Confidence in the audit was strengthened by the observation that records were filed independently by receiving, manufacturing, QA/QC and accounting; records were cross-referenced by date, raw material number, batch and lot numbers; and records were initialed by the personnel responsible for each stage of the manufacturing process.

The audit accurately described the operations of the facility and even disclosed some discrepancies which prompted further investigations. However, all differences were explained and were described as being typical of GMP in this industry. The amount of methyl paraben consumed was found to be in acceptable agreement with the raw material audit. Thus, the audit was able to verify the consumption of the pseudo Schedule 2 chemical, methyl paraben.

SAMPLE ANALYSIS

Two samples of end products were taken for analysis. The samples were suggested by the audit team to correspond with their detailed studies. They were analyzed using high-pressure liquid chromatography by facility staff under continuous observation by inspectors skilled in analytical techniques.

The analysis showed the presence of the declared chemical, although some discrepancies in concentration were observed. These losses could be due to a number of factors, including hydrolysis of methyl paraben to p-hydroxy benzoic acid during storage or to the fact that the matrix of the sample was different from that of the analytical protocol. In fact, a poorly retained peak (possibly due to p-hydroxy benzoic acid) was observed in the chromatogram.

The quality of the analytical support provided by the company was excellent. Methods and equipment were quickly

supplied, and the technical support was judged to be of a high standard.

CLOSING CONFERENCE

A closing conference was held, at which the inspection team leader presented a draft inspection report to company representatives who had participated in the exercise.

GENERAL CONCLUSIONS

In accordance with the aims of the practice trial inspection, as set out in the mandate, it was concluded that:

- (a) an audit trail can be used to follow a chemical through the established control system governing the chemical's use in the facility;
- (b) an audit trail inspection can be carried out without compromising the confidentiality of the facility's commercial interests; and
- (c) QC/QA procedures complemented the audit trail within the facility and provided confidence in the conclusions reached by the inspection team on the basis of the audit.

The cooperative attitude of company personnel tended to suggest that the inspection team was regarded as a national team, despite the international dimension lent to it by the presence of a foreign observer. A fully international inspection team might anticipate more hesitation on the part of staff due to uncertainty as to how to react to requests for certain information. This would be particularly true when staff were reacting to requests in an inspection with very short notice. Regular repetition of such inspections should soon overcome many of these difficulties.

SPECIFIC CONCLUSIONS

From an examination of the materials accountancy system and the equipment observed at the facility, the inspecting team concluded that the facility did not produce any Schedule 1 chemicals. The team concluded, however, that in principle it could produce solid physiologically active compounds, although this would require the exercise of additional and extraordinary care before such production could take place. The ability to produce and/or consume liquid toxic compounds was ruled out due to the absence of

suitable containment facilities and the lack of the safety precautions necessary for handling such materials.

The quality control system used by the facility for the simulated compound under investigation is mainly based on weights. This system was found by the inspectors to adequately support the records used in the audit trail of the simulated Schedule 2 chemical.

The company inspected was very generous in its willingness to provide information on request and it made no distinction among members of the team in terms of restrictions. "Blanking out" of information on records and other documents did not prevent the inspectors from concluding that the information received was sound and adequate to the objectives of the inspection. Some information extraneous to that required by the inspectors' mandate was inadvertently acquired by the inspectors, but company representatives suggested that more care would have been exercised if the inspection team had been an international one.

Some minor discrepancies were found between physical and book inventories, and in other areas. These, however, were judged by the inspectors to be normal to the processes used at the facility.

Two working days were involved in the trial inspection, including draft report preparation. It was concluded that more time would be required to carry out a full audit investigation than was available during this trial inspection. More than two of the products should have been followed in the detailed audit. Similarly, more time would be required to carry out a complete quantitative sample analysis.

In order to properly verify mass balances, analyses of chemicals at the various stages, including raw material and intermediate and finished products, carried out on a sound statistical basis, would be required.

RECOMMENDATIONS

At a declared facility inspected on a regular basis, information pertinent to "audit trail" investigations should be made available to inspectors in a way that separates commercial details (i.e., names of suppliers and clients; prices; chemical processes, etc...) from those essential for routine verification (i.e., dates of delivery of Schedule 2 chemicals; amounts received; quantities shipped out; shipping dates; etc...).

The concept of "bar coding" may hold some potential in preserving confidentiality and should be considered. Information regarding commercial details would be held, in coded form, between the company and the National Authority. Inspectors would not have access to this information as part of their audit trail investigation. However, should problems or discrepancies arise in the course of the investigation which the inspectors believe can be resolved only through further information concerning the "supplier route" or the destination of the chemical product upon transfer from the facility, the National Authority could decide to provide this information from the bar codes. The National Authority would reach a decision based on its own assessments of the reasonableness of the request as well as on the requirement generally for the state party to demonstrate compliance.

Another means of preserving business confidentiality which should be considered could be to require a routinely inspected facility to provide the relevant information in the form of a "spread sheet" or "flow chart" as part of its inventory and reporting obligations. In it, information relevant to the audit trail investigations would be detailed, but would be kept free of commercial details. Should uncertainties remain during the inspection concerning the accuracy of the data on the "spread sheets", a more detailed look into the original records could be requested. Such a request would then be on a specific, selected basis, not a wide-ranging one. This would prevent the company from having to delete details of commercial transactions from all original records, in anticipation that inspectors could request them on a non-specific basis.

The time required to perform a complete audit trail inspection of a modern pharmaceutical facility of the size and type examined in this trial could be between 3 and 5 days.

Experts required for this type of inspection should include an analytical chemist, a QA/QC chemist, an audit system expert and a chemical engineer/production chemist.

The facility should be required to include in its initial declaration the analytical chemical facilities that could be put at the disposal of the inspectors. This would help in planning inspections. The use of such facilities would normally be negotiated in the initial visit, however any subsequent equipment changes would be noted in annual declarations.

In the "rolling text" (CD/961) routine verification of Schedule 2 chemicals has tended to concentrate on the production of such chemicals at declared facilities. This exercise focussed on the consumption and compounding of a Schedule 2 chemical at a multipurpose pharmaceutical

facility. Further work should be done on the routine verification of consumption and compounding of scheduled chemicals at similar kinds of facilities.

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CHINA

Fundamental position and propositions on challenge inspection

I

The Chinese delegation has all along participated constructively in the work of the Conference on Disarmament and the Ad hoc Committee on Chemical Weapons, one of its subsidiary bodies. On the issue of challenge inspection, it has elucidated its consistent position and put forward positive and concrete suggestions on various occasions. For instance, in his important speech at the plenary meeting of the CD on 27 February 1990, the Chinese Foreign Minister expounded China's principled position on this issue, and on 12 April 1990, at the 551st plenary meeting of the CD, the head of the Chinese delegation further elaborated China's position and suggestions on issues concerning the ongoing negotiation on the convention on chemical weapons. During the 1990 session of the Conference, the Chinese delegation took part in a serious manner in some of the private and open-ended consultations and discussions conducted by the Chairman of the Ad hoc Committee on Chemical Weapons, Ambassador Hyltenius of Sweden, both bilaterally and in a multilateral form. The Chinese delegation has also put forward constructive suggestions and written amendments concerning the Chairman's drafts for consultations on article IX. The Chinese delegation finds it necessary to reiterate its principled position and suggestions, in the hope that they will be seriously considered and objectively reflected.

The Chinese delegation would like to reaffirm its desire to engage in constructive consultations and co-operation with the Chairman of the Ad hoc Committee and all other delegations.

II

It has been China's consistent position to work energetically towards the early conclusion of a convention on the complete prohibition and thorough destruction of all chemical weapons.

It is imperative to ensure the universality, authority and long-term effectiveness of the future convention, so as to enhance world peace and security and contribute to the sound development of international relations.

As one of the measures to ensure its effectiveness, the future convention should establish an effective, reasonable and practicable verification régime, which includes appropriate challenge inspections.

Established to serve the fundamental objective of the future convention, i.e. the complete prohibition and thorough destruction of all chemical weapons, the verification régime, including challenge inspection, should strictly safeguard the purposes and objective of the convention and conform to its scope and provisions both in letter and spirit.

All States parties should be on an equal footing. They undertake the same obligations and should enjoy the same rights. There should be balance between their rights and obligations. This is entirely applicable to the relationship between the requesting and the requested States parties.

The correct and responsible use of the right to challenge inspection can enhance the authority and effectiveness of the future convention. But equally important is the prevention of the possible abuse of this right, so that the objective of the future convention will not be compromised. Therefore, it is necessary, on the one hand, to use challenge inspection as a means of discovering non-compliance with the convention, and on the other, oppose any abuse of challenge inspection and establish appropriate procedures and adopt effective measures to preclude such a possibility.

The actual implementation of challenge inspection is a sensitive act of multilateral international relations. Therefore, the Organization should be given the leading role in the whole process of conducting challenge inspection, which should be in conformity with the commonly recognized norms of international law, including the Charter of the United Nations.

The importance of resolutions of the United Nations General Assembly on verification issues should be stressed. In particular, the fundamental principles on verification contained in the Final Document of SSOD-I and the principles on verification unanimously adopted by the 1988 session of UNDC and endorsed by the forty-third session of the General Assembly should be the guideline and yardstick to be abided by in the formulation of provisions on verification, including challenge inspection.

III

On the basis of these principles, the Chinese delegation reiterates its suggestion, i.e. the provisions of principal, relevant articles and the operational procedures of challenge inspection in the future convention should contain the following elements:

(1) In strict conformity with the purposes and objective of the future convention, challenge inspections should be conducted in any facility, location or installation relevant to compliance with, and the implementation of the convention;

(2) The State party requesting a challenge inspection has the obligation, pursuant to the relevant provisions of the future convention, to provide the Organization, in the request, with convincing reasons for requesting such an inspection and evidence specifying, as precisely as possible, the site to be inspected and the matter to be clarified, including

the nature and degree of suspected non-compliance, and the specific provisions about which doubts about compliance have arisen,

(3) The above-mentioned verification principles adopted by UNDC and endorsed by the General Assembly should be implemented. It is specified in these principles that requests for inspections "should be used only for the purposes of the determination of compliance, care being taken to avoid abuses" and that verification arrangements "should avoid unduly interfering with the internal affairs of States parties or other States, or jeopardizing their economic, technological and social development";

(4) The Organization (e.g., the Technical Secretariat), upon receiving a request for challenge inspection that conforms to the requirements, should immediately communicate the request to the Executive Council, the States members of the Executive Council and the requested State;

(5) The Organization (e.g., the Executive Council) should consider the request for challenge inspection and decide whether the inspection should be carried out. In case of an affirmative decision, it shall elaborate a mandate for the conduct of the inspection;

(6) Such an inspection as is decided upon by the Organization should be carried out by a team of international inspectors, which should not include nationals of the requesting and requested States, in accordance with the prescribed mandate, which the inspection team has no right to modify. Subject to the consent of the requested State party and the inspection team, the requesting State party may send an observer or observers to the inspection site to observe the inspection activities in an appropriate way;

(7) The requested State party has the right and is under the obligation to demonstrate compliance. It also has the right to launch appeals concerning the abuse of the right to challenge inspection, and to provide relevant evidence;

(8) Upon receiving the inspection report submitted by the inspection team, the Executive Council should consider it without delay and decide on whether any non-compliance with the convention or abuse of the right to challenge inspection has occurred and consider and take appropriate actions, including necessary sanctions, to deal with and redress the situation. Decisions of the Executive Council should be immediately notified to the inspected State party, the challenging State party and all States members of the Executive Council and, if necessary, to the Conference of States Parties and the Security Council of the United Nations.

The above-mentioned verification activities should be completed by the end of the year. It is requested that the General Assembly should be informed of the progress of these activities and that the necessary resources be allocated to ensure their successful completion. The General Assembly should also be kept informed of the results of the verification activities and the progress of the work.

The Organization should continue to work closely with the States Parties to the Convention to ensure the effective implementation of the Convention. The Organization should also continue to work with the States Parties to ensure the effective implementation of the Convention.

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CONFERENCE ON DISARMAMENT

CD/1033

10 August 1990

Original: ENGLISH

REPORT OF THE AD HOC COMMITTEE ON CHEMICAL WEAPONS TO THE CONFERENCE ON DISARMAMENT

I. INTRODUCTION

1. At its 535th plenary meeting on 15 February 1990 the Conference on Disarmament adopted the following decision on the re-establishment of the Ad Hoc Committee on Chemical Weapons (CD/968):

"The Conference on Disarmament, keeping in mind that the negotiation of a Convention should proceed with a view to its final elaboration at the earliest possible date, in accordance with United Nations General Assembly resolutions 44/115 A and B, and in discharging its responsibility to conduct as a priority task the negotiations on a multilateral Convention on the complete and effective prohibition of the development, production and stockpiling of chemical weapons and on their destruction, and to ensure the preparation of the convention, decides to re-establish, in accordance with its rules of procedure, for the duration of its 1990 session, the Ad Hoc Committee to continue the full and complete process of negotiations, developing and working out the convention, taking into account all existing proposals and drafts as well as future initiatives with a view to giving the Conference a possibility to achieve an agreement as soon as possible. This agreement, if possible, or a report on the progress of the negotiations, should be recorded in the report which this Ad Hoc Committee will submit to the Conference at the end of the second part of its 1990 session."

II. ORGANIZATION OF WORK AND DOCUMENTATION

2. At its 535th plenary meeting on 15 February 1990, the Conference on Disarmament appointed Ambassador Carl-Magnus Hyltenius of Sweden as Chairman of the Ad Hoc Committee. Mr. Abdelkader Bensmail, Senior Political Affairs Officer, Department for Disarmament Affairs, continued to serve as Secretary of the Ad Hoc Committee, assisted by Ms. Agnès Marcaillou, Political Affairs Officer, Department for Disarmament Affairs.
3. The Ad Hoc Committee held 15 meetings from 21 February to 10 August 1990. In addition, the Chairman held a number of informal consultations with delegations.
4. At their request, the representatives of the following States not members of the Conference participated in the work of the Ad Hoc Committee: Austria, Bahrain, Bangladesh, Cameroon, Chile, Denmark, Democratic People's Republic of Korea, Finland, Ghana, Greece, Holy See, Honduras, Iraq, Ireland, Israel, Jordan, Kuwait, Libyan Arab Jamahiriya, Malaysia, New Zealand, Norway, Oman, Portugal, Qatar, Republic of Korea, Senegal, Spain, Sudan, Syrian Arab Republic, Switzerland, Tunisia, Turkey, United Arab Emirates, Uruguay, Viet Nam and Zimbabwe.
5. During the 1990 session, the following official documents dealing with chemical weapons were presented to the Conference on Disarmament.
 - CD/958, dated 23 January 1990, submitted by the delegation of Egypt, entitled "Report on the national trial inspection".
 - CD/960 (also issued as CD/CW/WP.274), dated 1 February 1990, submitted by the delegation of France, entitled "Second national trial inspection".
 - CD/961, dated 1 February 1990, entitled "Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament on its work during the period 16 January to 1 February 1990".
 - CD/966 (also issued as CD/CW/WP.275), dated 14 February 1990, submitted by the delegation of the Union of Soviet Socialist Republics, entitled "Experimental challenge inspection at a military installation".
 - CD/968, dated 15 February 1990, entitled "Decision on the re-establishment of the Ad Hoc Committee on Chemical Weapons".
 - CD/969 (also issued as CD/CW/WP.277), dated 19 February 1990, submitted by the delegation of Hungary, entitled "Provision of data relevant to the Chemical Weapons Convention".

- CD/970, dated 20 February 1990, entitled "Letter dated 16 February 1990 from the Chargé d'Affaires of the Libyan Arab Jamahiriya addressed to the President of the Conference on Disarmament transmitting a statement issued by the People's Committee for Foreign Liaison and International Cooperation in Tripoli on 13 February 1990".

- CD/971, dated 20 February 1990, entitled "Letter dated 15 February 1990 from the Permanent Representative of Austria addressed to the Secretary-General of the Conference on Disarmament transmitting a document containing additional information on Austrian production data relevant to the future Chemical Weapons Convention".

- CD/972, dated 21 February 1990, entitled "Letter dated 12 February 1990 from the Permanent Representative of Austria addressed to the Secretary-General of the Conference on Disarmament transmitting an aide memoire on the Austrian offer to host the Organization for the Prohibition of Chemical Weapons in Vienna".

- CD/973, dated 23 February 1990, entitled "Letter dated 20 February 1990 from the Representative of the United States of America addressed to the President of the Conference on Disarmament transmitting documents from the Wyoming and Moscow Meetings between the United States Secretary of State James A. Baker, III and Union of Soviet Socialist Republics Foreign Minister Eduard A. Shevardnadze".

- CD/974, dated 23 February 1990, entitled "Letter dated 20 February 1990 from the Representative of the Union of Soviet Socialist Republics addressed to the President of the Conference on Disarmament transmitting documents from the Wyoming and Moscow Meetings between the Union of Soviet Socialist Republics Foreign Minister Eduard A. Shevardnadze and United States Secretary of State James A. Baker, III".

- CD/975 (also issued as CD/CW/WP.278), dated 9 March 1990, submitted by the delegation of the Federal Republic of Germany, entitled "Report on a trial challenge inspection".

- CD/980, dated 27 March 1990, submitted by the delegation of Czechoslovakia, entitled "List of experts and laboratories for examination and analyses in the event of an investigation of reports of possible use of chemical, bacteriological (biological) or toxin weapons".

- CD/982, dated 30 March 1990, submitted by the delegation of Yugoslavia, entitled "Report on the national trial inspection".

- CD/983 (also issued as CD/CW/WP.283), dated 5 April 1990, submitted by the delegation of the Federal Republic of Germany, entitled "Report on the second trial inspection (challenge inspection) in the Federal Republic of Germany".

- CD/984 (also issued as CD/CW/WP.284), dated 10 April 1990, submitted by the delegation of the Federal Republic of Germany, entitled "Ad Hoc verification: the establishment of national registers".
- CD/985 (also issued as CD/CW/WP.289), dated 17 April 1990, submitted by the delegation of Poland, entitled "Provision of data relevant to the Chemical Weapons Convention".
- CD/987 (also issued as CD/CW/WP.290), dated 19 April 1990, submitted by the delegation of Canada, entitled "National trial inspection at a single small-scale facility".
- CD/988 (also issued as CD/CW/WP.291), dated 20 April 1990, entitled "Letter dated 19 April 1990 from the Permanent Mission of India addressed to the Secretary-General of the Conference on Disarmament transmitting a document entitled 'Report of the national trial inspection conducted by India'".
- CD/991, dated 25 April 1990, entitled "Letter dated 23 April 1990 from the Permanent Mission of Denmark addressed to the secretariat of the Conference on Disarmament transmitting documentation concerning multilateral data exchange prior to the signing of a chemical weapons convention".
- CD/992, dated 25 April 1990, "Letter dated 23 April 1990 from the Deputy Permanent Representative of Canada addressed to the Secretary-General of the Conference on Disarmament transmitting compendia on chemical weapons comprising plenary statements and working papers from the 1989 session of the Conference on Disarmament".
- CD/993, dated 26 April 1990, entitled "Letter dated 23 April 1990 from the Deputy Permanent Representative of Canada addressed to the Secretary-General of the Conference on Disarmament transmitting a report entitled 'Verification methods, handling and assessment of unusual events in relation to allegations of the use of novel chemical warfare agents'".
- CD/994, dated 30 April 1990, entitled "Letter dated 23 April 1990 from the Deputy Permanent Representative of Canada addressed to the Secretary-General of the Conference on Disarmament transmitting a document entitled 'Role and function of a national authority in the implementation of a chemical weapons convention'".
- CD/996 (also issued as CD/CW/WP.292), dated 12 June 1990, submitted by the delegation of the German Democratic Republic, entitled "Report on a Trial Challenge Inspection in a Chemical Industry Plant".
- CD/997 (also issued as CD/CW/WP.293), dated 12 June 1990, submitted by the delegation of the German Democratic Republic, entitled "Inspection Methodology for Challenge Inspections in Industrial Chemical Plants".

- CD/998 (also issued as CD/CW/WP.294), dated 12 June 1990, submitted by the delegation of the German Democratic Republic, entitled "Application of Trace Analysis to Exploit Memory Effects in Challenge Inspections".

- CD/999 (also issued as CD/CW/WP.295), dated 12 June 1990, submitted by the delegation of Austria, entitled "Report on a National Trial Inspection".

- CD/1000, dated 12 June 1990, entitled "Letter dated 12 June 1990 from the Representative of the Union of Soviet Socialist Republics addressed to the President of the Conference on Disarmament transmitting the text of the agreement between the Union of Soviet Socialist Republics and the United States of America on destruction and non-production of chemical weapons and on measures to facilitate the multilateral convention on banning chemical weapons, the agreed statement in connection with this agreement and the USSR-US joint statement on non-proliferation".

- CD/1001, dated 12 June 1990, entitled "Letter dated 12 June 1990 from the Acting Representative of the United States of America addressed to the President of the Conference on Disarmament transmitting the text of the agreement between the United States of America and the Union of Soviet Socialist Republics on the destruction and non-production of chemical weapons and on measures to facilitate the multilateral convention on banning chemical weapons, the agreed statement in connection with this agreement and the US-USSR joint statement on non-proliferation".

- CD/1008 (also issued as CD/CW/WP.298), dated 26 June 1990, submitted by the delegation of Norway, entitled "Use of sorbent extraction in verification of alleged use of chemical weapons".

- CD/1009, dated 5 July 1990, entitled "Letter dated 4 July 1990 from the Permanent Representative of Finland addressed to the Secretary-General of the Conference on Disarmament transmitting the latest volume of the Blue Book series on Verification of Chemical Disarmament, entitled 'International Interlaboratory Comparison (Round-Robin) Test, F.1 Testing of Existing Procedures'".

- CD/1012 (also issued as CD/CW/WP.304), dated 11 July 1990, submitted by the delegation of the United Kingdom of Great Britain and Northern Ireland, entitled "Verification of the Chemical Weapons Convention: Practice Challenge Inspections of Government Facilities: Analysis of Results".

- CD/1014/Rev.1 (also issued as CD/CW/WP.305/Rev.1), dated 16 July 1990, submitted by the delegation of Romania, entitled "Data relevant to the Chemical Weapons Convention".

- CD/1017, dated 19 July 1990, submitted by the delegation of Bulgaria, entitled "Submission of data in connection with the Convention on the Prohibition of Chemical Weapons".

- CD/1018 (also issued as CD/CW/WP.307), dated 19 July 1990, submitted by the delegation of the Netherlands, entitled "Report on a Trial Challenge Inspection".
- CD/1019, dated 23 July 1990, entitled "Letter dated 20 July 1990 from the Chargé d'Affaires a.i. of Norway addressed to the President of the Conference on Disarmament transmitting a research report entitled 'Use of sorbent extraction in verification of alleged use of chemical warfare agents: Part IX'".
- CD/1020 (also issued as CD/CW/WP.310), dated 26 July 1990, submitted by the delegation of the German Democratic Republic, entitled "Report on a trial challenge inspection".
- CD/1021 (also issued as CD/CW/WP.311), dated 26 July 1990, submitted by the delegation of the Czech and Slovak Federal Republic, entitled "Report on a trial challenge inspection at a chemical facility".
- CD/1022 (also issued as CD/CW/WP.312), dated 26 July 1990, submitted by the delegation of the Czech and Slovak Federal Republic, entitled "Report on a trial challenge inspection at a military facility".
- CD/1024 (also issued as CD/CW/WP.313), dated 31 July 1990, submitted by the delegation of Peru, entitled "New article of a convention on chemical weapons relating to the environment".
- CD/1025 (also issued as CD/CW/WP.314), dated 31 July 1990, submitted by the delegation of Peru, entitled "Proposal for the inclusion in the Chemical Weapons Convention of an Article on 'Duration'".
- CD/1026 (also issued as CD/CW/WP.315), dated 3 August 1990, submitted by the delegation of the Federal Republic of Germany, entitled "Chemical Weapons Verification Workshop, Munster, 14-15 June 1990".
- CD/1029 (also issued as CD/CW/WP.318), dated 8 August 1990, submitted by the delegation of France, entitled "Report on a trial challenge inspection".
- CD/1030/Rev.1 (also issued as CD/CW/WP.319/Rev.1), dated 8 August 1990, submitted by the delegation of Canada, entitled "Report on a national trial inspection".
- CD/1031 (also issued as CD/CW/WP.320), dated 10 August 1990, submitted by the delegation of China, entitled "Fundamental position and propositions on challenge inspection".

6. In addition, the following Working Papers were presented to the Ad Hoc Committee:

- CD/CW/WP.264, dated 21 November 1989, submitted by the delegation of the Union of Soviet Socialist Republics, entitled "Submission of data relevant to the convention on the prohibition of chemical weapons".

- CD/CW/WP.265, dated 11 December 1989, submitted by the delegation of the United States of America, entitled "Demilitarization and disposal of U.S. chemical warfare agent and munitions".

- CD/CW/WP.266, dated 11 December 1989, submitted by the delegation of the United States of America, entitled "Sample preparation, preservation, security and transportation under the Chemical Weapons Convention".

- CD/CW/WP.267, dated 11 December 1989, submitted by the delegation of the United States of America, entitled "The use of instruments in chemical process monitoring or demilitarization of chemical weapons".

- CD/CW/WP.268, dated 13 December 1989, submitted by the delegation of the United States of America, entitled "Use of satellite network for collection of data from facilities".

- CD/CW/WP.269, dated 12 January 1990, submitted by the delegation of the United Kingdom of Great Britain and Northern Ireland, entitled "Instrumental approaches to non-intrusive analytical techniques for inspection and verification".

- CD/CW/WP.270, dated 18 January 1990, submitted by the delegation of Switzerland, entitled "Verification of a treaty on a chemical weapons ban: chances and limits of process monitoring".

- CD/CW/WP.271, dated 18 January 1990, submitted by the delegation of the Netherlands, entitled "The role of military detection and monitoring equipment for the verification of non-production of chemical weapons".

- CD/CW/WP.272, dated 22 January 1990, entitled "Report of the Technical Group on Instrumentation".

- CD/CW/WP.273, dated 30 January 1990, entitled "Draft Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament".

- CD/CW/WP.274 (also issued as CD/960).

- CD/CW/WP.275 (also issued as CD/966).

- CD/CW/WP.276, dated 19 February 1990, entitled "Working Paper presented by the Chairman of the Ad Hoc Committee: 'Organisation of Work for the 1990 Session'".

- CD/CW/WP.277 (also issued as CD/969).
- CD/CW/WP.278 (also issued as CD/975).
- CD/CW/WP.279, dated 15 March 1990, submitted by the delegation of Canada, entitled "Thiodiglycol".
- CD/CW/WP.280, dated 16 March 1990, submitted by the delegation of Sweden, entitled "Provision of data relevant to the Chemical Weapons Convention".
- CD/CW/WP.281, dated 16 March 1990, submitted by the delegation of Japan, entitled "Provision of data relevant to the Chemical Weapons Convention".
- CD/CW/WP.282, dated 16 March 1990, submitted by the Western Group, entitled "Technical Support for the Chairman of the Ad Hoc Committee".
- CD/CW/WP.283 (also issued as CD/983).
- CD/CW/WP.284 (also issued as CD/984).
- CD/CW/WP.285, dated 10 April 1990, submitted by the delegation of Norway, entitled "Report on a national trial inspection of an industrial chemical facility".
- CD/CW/WP.286, dated 11 April 1990, submitted by the delegation of Australia, entitled "Ad hoc verification: discussion paper".
- CD/CW/WP.287, dated 11 April 1990, submitted by the delegation of Italy, entitled "Production capacity".
- CD/CW/WP.288, dated 11 April 1990, submitted by the delegations of Australia; Canada; Finland; France; Germany, Federal Republic of; the Netherlands; Norway; Sweden; Switzerland; and the United Kingdom of Great Britain and Northern Ireland, entitled "International Interlaboratory Comparison (Round Robin) Test".
- CD/CW/WP.289 (also issued as CD/985).
- CD/CW/WP.290 (also issued as CD/987).
- CD/CW/WP.291 (also issued as CD/988).
- CD/CW/WP.292 (also issued as CD/996).
- CD/CW/WP.293 (also issued as CD/997).

- CD/CW/WP.294 (also issued as CD/998).
- CD/CW/WP.295 (also issued as CD/999).
- CD/CW/WP.296, dated 18 June 1990, submitted by the delegation of the United Kingdom of Great Britain and Northern Ireland, entitled "Addition of Chemicals to the Schedules".
- CD/CW/WP.297, dated 20 June 1990, submitted by the delegation of Finland, entitled "Provision of data relevant to the Chemical Weapons Convention".
- CD/CW/WP.298 (also issued as CD/1008).
- (- CD/CW/WP.299: withdrawn).
- CD/CW/WP.300, dated 27 June 1990, submitted by the delegation of the United States of America, entitled "Revisions to Article VI, Permitted Activities".
- CD/CW/WP.301, dated 27 June 1990, submitted by the delegation of the United States of America, entitled "Report on the Second United States Trial Inspection Exercise".
- CD/CW/WP.302, dated 28 June 1990, submitted by the delegation of the Netherlands, entitled "Analytical chemical results of the second trial inspection on verification of non-production of chemical warfare agents in a civil chemical industry in the Netherlands".
- CD/CW/WP.303, dated 28 June 1990, submitted by the delegations of the Union of Soviet Socialist Republics and the United States of America, entitled "Proposed Revisions to the Rolling Text".
- CD/CW/WP.304 (also issued as CD/1012).
- CD/CW/WP.305/Rev.1 (also issued as CD/1014/Rev.1).
- CD/CW/WP.306, dated 17 July 1990, entitled "Report of the Technical Group on Instrumentation".
- CD/CW/WP.307 (also issued as CD/1018).
- CD/CW/WP.308, dated 19 July 1990, submitted by the delegation of the Netherlands, entitled "Criteria for confirmation of chemical warfare agents identification".
- CD/CW/WP.309, dated 25 July 1990, submitted by the delegation of Switzerland, entitled "National trial inspection (documents and annexes to CD/CW/WP.247)".

- CD/CW/WP.310 (also issued as CD/1020).
- CD/CW/WP.311 (also issued as CD/1021).
- CD/CW/WP.312 (also issued as CD/1022).
- CD/CW/WP.313 (also issued as CD/1024).
- CD/CW/WP.314 (also issued as CD/1025).
- CD/CW/WP.315 (also issued as CD/1026).
- CD/CW/WP.316, dated 6 August 1990, entitled "Chairman's Summary of the 1990 open-ended consultations on Article IX".
- CD/CW/WP.317, dated 6 August 1990, entitled "Draft Report of the Ad Hoc Committee on Chemical Weapons to the Conference on Disarmament".
- CD/CW/WP.318 (also issued as CD/1029).
- CD/CW/WP.319/Rev.1 (also issued as CD/1030/Rev.1).
- CD/CW/WP.320 (also issued as CD/1031).

III. SUBSTANTIVE WORK DURING THE 1990 SESSION

7. In accordance with its mandate, the Ad Hoc Committee continued the negotiation and further elaboration of the convention. In so doing, it utilized Appendices I and II of CD/961 (Report of the Ad Hoc Committee on Chemical Weapons on its work during the period 16 January to 1 February 1990), as well as other proposals presented by the Chairman of the Committee, the Chairmen of the Working Groups and by delegations.

8. In discharging its mandate, the Ad Hoc Committee decided to set up the following three Working Groups:

(a) Working Group A: Verification issues

Chairmen: Mr. Georges Lamazière, Brazil (21 February-25 March 1990)
Mr. Johan Molander, Sweden (26 March-27 April 1990)
Mr. Shahbaz, Pakistan (from 12 June 1990)

- The Protocol on Inspection Procedures and its relationship with the Annexes to Articles IV, V and VI.
- Ad hoc verification measures.
- Verification of alleged use of chemical weapons.

(b) Working Group B: Technical issues

Chairman: Mr. Arend Meerburg, The Netherlands

- Articles IV and V and their Annexes, in particular the order of destruction.
- Schedules.
- Guidelines for Schedule 1.
- Definitions.
- Toxicity, thresholds, production capacity.

(c) Working Group C: Legal and institutional issues

Chairman: Dr. Walter Krutzsch, German Democratic Republic

- Amendments.
- Other final clauses, including the settlement of disputes.
- Sanctions.
- The Organization.

9. The Chairman of the Committee dealt with the following issues in private and open-ended consultations:

- Article IX.
- "Undiminished security and universal adherence to the Convention".
- Functions, composition and decision-making process of the Executive Council.
- Article XI, Economic and Technological Development.

10. In addition, three Friends of the Chair were appointed to deal with the following specific issues in open-ended consultations:

- (a) Article X on "Assistance and Protection against Chemical Weapons":
(Ambassador Roberto García-Moritán, Argentina)
- (b) "Old chemical weapons":
(Ambassador Pierre Morel, France)
- (c) "Jurisdiction and control":
(Ambassador David Reese, Australia)

11. Furthermore, the Committee decided to re-establish the Technical Group on Instrumentation, chaired by Dr. Marjatta Rautio of Finland. The Group dealt with the issue of verification by instruments and other technical means in the absence of a facility agreement, with special emphasis on detection devices, sampling equipment, types of samples, transport of samples to an off-site laboratory, on-site analyses, use of a mobile laboratory, novel agents, non-destructive measurement technology and instrumental data bases. The Report of the Group is contained in document CD/CW/WP.306.

12. During the period 27-29 June 1990, the Committee held a number of meetings with representatives from the chemical industry on the following subjects of relevance to the Convention: (a) protection of confidential information; (b) technical aspects of the Convention, in particular the contents of the schedules of chemicals together with their verification régimes; (c) ad hoc verification; and (d) possible conclusions to be derived from national trial inspections carried out so far.

IV. CONCLUSIONS AND RECOMMENDATIONS

13. The results of the work undertaken during the 1990 session are reflected in the up-dated versions of the Appendices to CD/961, attached hereto. Appendix I to this Report represents the present stage of elaboration of the provisions of the Draft Convention. Appendix II contains papers reflecting the results of work undertaken so far on issues under the Convention. They are included as a basis for future work.

14. The Ad Hoc Committee recommends to the Conference on Disarmament:

(a) that Appendix I to this Report be used for further negotiation and drafting of the Convention;

(b) that other documents reflecting the results of the work of the Ad Hoc Committee, as contained in Appendix II to this report, together with other relevant present and future documents of the Conference, also be utilized in the further negotiation and elaboration of the Convention;

(c) that work on the Convention, under the Chairmanship of Ambassador Carl-Magnus Hyltenius of Sweden be resumed as follows:

(i) that in preparation for the resumed session, open-ended consultations of the Ad Hoc Committee be held between 26 November and 21 December 1990 including, when necessary, meetings with full services;

(ii) that the Ad Hoc Committee hold a session of limited duration during the period 8 to 18 January 1991;

(d) that the Ad Hoc Committee be re-established at the outset of the 1991 session of the Conference on Disarmament and that the decision on the mandate and chairmanship for 1991 be taken at the beginning of the Conference in 1991.

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- Document CD/1025 (also issued as CD/CW/WP.314) submitted by Peru, entitled "Proposal for the inclusion in the Chemical Weapons Convention of an Article on 'Duration'" ...	245

1. Final Report of the Commission on Chemical Weapons
The Commission on Chemical Weapons was established in 1988 to study the
possibility of the use of chemical weapons and to recommend
measures to prevent their use. The Commission's report is
presented in the following sections:

II. Definitions and criteria
III. Principles and objectives of the Convention
IV. Scope of the Convention

V. Prohibition of the development, production, stockpiling, acquisition, retention, use and transfer of chemical weapons
VI. Prohibition of the use of chemical weapons
VII. Prohibition of assistance, encouragement, inducement or coercion in the development, production, stockpiling, acquisition, retention, use and transfer of chemical weapons
VIII. Prohibition of acts of reprisal

IX. Prohibition of the use of chemical weapons in international armed conflicts
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XI. Prohibition of the use of chemical weapons in situations of internal armed conflict

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APPENDIX I

XIV. Prohibition of the use of chemical weapons in situations of internal armed conflict
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Preliminary structure of a Convention on chemical weapons

Preamble

- I. General provisions on scope
- II. Definitions and criteria
- III. Declarations
- IV. Chemical weapons
- V. Chemical weapons production facilities
- VI. Activities not prohibited by the Convention
- VII. National implementation measures
- VIII. The Organization
- IX. Consultations, co-operation and fact finding
- X. Assistance and protection against chemical weapons
- XI. Economic and technological development
- XII. Relation to other international agreements
- XIII. Amendments
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- XV. Signature
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- XVII. Accession
- XVIII. Depositary
- XIX. Entry into force
- XX. Languages and authentic texts

Annexes and other documents

Preamble 1/

The States Parties to this Convention,

Determined to act with a view to achieving effective progress towards general and complete disarmament under strict and effective international control, including the prohibition and elimination of all types of weapons of mass destruction,

Desiring to contribute to the realization of the purposes and principles of the Charter of the United Nations,

Recalling that the General Assembly of the United Nations Organization has repeatedly condemned all actions contrary to the principles and objectives of the Protocol for Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925,

Recognizing that the Convention reaffirms principles and objectives of and obligations assumed under the Geneva Protocol of 17 June 1925, and the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction signed at London, Moscow and Washington on 10 April 1972,

Bearing in mind the objective contained in Article IX of the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction,

Determined for the sake of all mankind, to completely exclude the possibility of the use of chemical weapons, through the implementation of the provisions of this Convention, thereby complementing the obligations assumed under the Geneva Protocol of June 1925,

Considering that the achievements in the field of chemistry should be used exclusively for the benefit of mankind,

Convinced that the complete and effective prohibition of the development, production and stockpiling of chemical weapons, and their destruction, represents a necessary step towards the achievement of these common objectives.

Have agreed as follows:

1/ Some delegations consider that the texts contained in the Preamble require further consideration.

I. GENERAL PROVISIONS ON SCOPE 1/ 2/ 3/

1. Each State Party undertakes not to:

- develop, produce, otherwise acquire, stockpile or retain chemical weapons, or transfer, directly or indirectly, chemical weapons to anyone.

2. Each State Party undertakes not to:

- assist, encourage or induce, in any way, anyone to engage in activities prohibited to Parties under this Convention.

1/ One delegation pointed out, the preoccupying effects, in its view, on the security of States deriving from the very large disproportion, during the transitional period, between existing chemical weapons capabilities.

2/ Other delegations believed that the problem of disproportion between chemical weapons capabilities can be solved through their levelling out by a certain time after the entry into force of the Convention.

3/ The view was expressed that the provisions of this Article, as they are directly related to the universality of the Convention, should be taken in connection with Articles on Chemical Weapons and Duration. In this regard, document CD/CW/WP.314 contained in the "Other Documents" Section of Appendix II, proposes that the Convention shall be permanent in character and shall continue in force indefinitely. It also states that the obligations flowing from the Convention shall cease for States Parties not possessing chemical weapons if, 90 days after the completion of the period of destruction, the Organization could not declare that all the States Parties have carried out their obligations specified in Article I. On the other hand, the destruction of chemical weapons should take into account provisions relating to the environment as proposed in document CD/CW/WP.313.

3. Each State Party undertakes not to use chemical weapons. 1/ 2/
4. [Each State Party undertakes not to [conduct other activities in preparation for use of chemical weapons] [engage in any military preparations for use of chemical weapons].]
5. Each State Party undertakes to destroy chemical weapons which are in its possession or under its [jurisdiction or] control. 3/ 4/
6. Each State Party undertakes to destroy chemical weapons production facilities which are in its possession or under its [jurisdiction or] control.

1/ It is understood that this provision is closely linked to the definition of chemical weapons in another part of the Convention, the final formulation of which is yet to be agreed upon. It is also understood that this provision does not apply to the use of toxic chemicals and their precursors for permitted purposes still to be defined and to be provided for in the Convention. This provision is also closely linked to a provision in the Convention to be agreed upon relating to reservations.

2/ The question of herbicides was subject to earlier consultations. The 1986 Chairman of these open-ended consultations has suggested the following formulation for a provision on herbicides: "Each State Party undertakes not to use herbicides as a method of warfare; such a prohibition should not preclude any other use of herbicides".

3/ The view was expressed that the application of this provision to the destruction of discovered old chemical weapons needs to be further discussed. Another view was expressed that the application of this provision does not allow for any exceptions. The outcome of consultations carried out during the 1990 session on the issue of old chemical weapons is contained in Appendix II.

4/ During the 1990 session, consultations were carried out on the issue of Jurisdiction and Control, the results of which are contained in Appendix II.

II. DEFINITIONS AND CRITERIA

For the purposes of this Convention:

1.1/ The term "Chemical Weapons" shall apply to the following, together or separately: 2/

- (i) Toxic Chemicals [, including super-toxic lethal chemicals, other lethal chemicals and harmful chemicals], and their Precursors [(including key precursors and key components of binary and/or multicomponent chemical systems for chemical weapons),][as well as other chemicals intended to enhance the effect of the use of those weapons,] except such chemicals intended for Purposes Not Prohibited Under the Convention, as long as the types and quantities involved are consistent with such purposes;
- (ii) munitions and devices, specifically designed to cause death or other harm through the toxic properties of those toxic chemicals, as referred to above, which would be released as a result of the employment of such munitions and devices;
- (iii) any equipment specifically designed for use directly in connection with the employment of such munitions or devices.

- [The term "Chemical Weapons" shall not apply to those chemicals which are not super-toxic lethal, or other lethal chemicals and which are approved by the Conference of the States Parties for use by a Party for domestic law enforcement and domestic riot control purposes.]

1/ The definitions of chemical weapons are presented on the understanding that problems related to irritants used for law enforcement and riot control, and also to chemicals intended to enhance the effect of the use of chemical weapons if their inclusion in the Convention is agreed could be handled outside the definitions of chemical weapons if this will result in a more clear and understandable definition. Preliminary suggestions to solve these problems are given below and consultations on them will be continued.

2/ One delegation expressed its reservation on the present formulation of the definition of chemical weapons and on the terminology used in (i) that failed to reflect the general purpose criterion.

2. "Toxic Chemical" means:

any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans and animals. ^{1/} This includes all such chemicals, regardless of their origin or method of production and, regardless of whether they are produced in facilities, in munitions or elsewhere.

3. "Precursor" means:

a chemical reagent which takes part in the production of a toxic chemical.

[For the purpose of implementing this Convention, toxic chemicals and their precursors identified for monitoring are listed in Schedules contained in the Annex on Chemicals.]

4. "Chemical Weapons Production Facility":

(a) means any equipment, as well as any building housing such equipment, that was designed, constructed or used at any time since 1 January 1946:

(i) as part of the stage in the production of chemicals ("final technological stage") where the material flows would contain, when the equipment is in operation

(1) any Schedule 1 chemical, or

^{1/} The question of herbicides was subject to earlier consultations. The 1986 Chairman of these open-ended consultations suggested the following formulation for a provision on herbicides: "Each State Party undertakes not to use herbicides as a method of warfare; such a prohibition should not preclude any other use of herbicides".

(2) any other chemical that

- has no use, above [1] tonne per year, for Purposes Not Prohibited Under the Convention, but
- can be used for chemical weapons purposes; 1/ 2/;

or

(ii) for filling Chemical Weapons, including, inter alia, the filling of Schedule 1 chemicals into munitions, devices or bulk storage containers; the filling of chemicals into containers which form part of assembled binary munitions and devices and into chemical submunitions which form part of assembled unitary munitions and devices; and the loading of the containers and chemical submunitions into the respective munitions and devices;

(b) does not include any facility with an annual capacity for synthesis of chemicals specified in subparagraph (a) (i) above that is less than [1-2] tonne; (Alternative: does not include any facility for synthesis of chemicals specified in subparagraph (a) (i) above with reaction vessels in production lines not configured for continuous operation and in which the volume of the reaction vessels does not exceed [100] litres while the total volume of all reaction vessels with a volume exceeding [5] litres is not more than [500] litres.)

(c) does not include the single small-scale facility provided under Annex 1 to Article VI of the Convention.

1/ Any such chemical should be included in a relevant Schedule of chemicals in the Convention.

2/ A proposal was made to the effect that the definition would not include any facility at which a chemical defined under subparagraph (a) (i) (2) above is produced as an unavoidable by-product in the manufacture of a chemical which has a use for Purposes Not Prohibited Under the Convention. Such a facility should be subject to the declarations and the verification provisions provided for under Annex 2 to Article VI, and the by-products defined under subparagraph (a) (i) (2) above should be destroyed under international verification. This proposal needs further consideration.

2. "Toxic Chemical" means:

any chemical which through its chemical action on life processes can cause death, temporary incapacitation or permanent harm to humans and animals. ^{1/} This includes all such chemicals, regardless of their origin or method of production and, regardless of whether they are produced in facilities, in munitions or elsewhere.

3. "Precursor" means:

a chemical reagent which takes part in the production of a toxic chemical.

[For the purpose of implementing this Convention, toxic chemicals and their precursors identified for monitoring are listed in Schedules contained in the Annex on Chemicals.]

4. "Chemical Weapons Production Facility":

(a) means any equipment, as well as any building housing such equipment, that was designed, constructed or used at any time since 1 January 1946:

(i) as part of the stage in the production of chemicals ("final technological stage") where the material flows would contain, when the equipment is in operation

(1) any Schedule 1 chemical, or

^{1/} The question of herbicides was subject to earlier consultations. The 1986 Chairman of these open-ended consultations suggested the following formulation for a provision on herbicides: "Each State Party undertakes not to use herbicides as a method of warfare; such a prohibition should not preclude any other use of herbicides".

(2) any other chemical that

- has no use, above [1] tonne per year, for Purposes Not Prohibited Under the Convention, but
- can be used for chemical weapons purposes; 1/ 2/;

or

(ii) for filling Chemical Weapons, including, inter alia, the filling of Schedule 1 chemicals into munitions, devices or bulk storage containers; the filling of chemicals into containers which form part of assembled binary munitions and devices and into chemical submunitions which form part of assembled unitary munitions and devices; and the loading of the containers and chemical submunitions into the respective munitions and devices

(b) does not include any facility with an annual capacity for synthesis of chemicals specified in subparagraph (a) (i) above that is less than [1-2] tonne; (Alternative: does not include any facility for synthesis of chemicals specified in subparagraph (a) (i) above with reaction vessels in production lines not configured for continuous operation and in which the volume of the reaction vessels does not exceed [100] litres while the total volume of all reaction vessels with a volume exceeding [5] litres is not more than [500] litres.)

(c) does not include the single small-scale facility provided under Annex 1 to Article VI of the Convention.

1/ Any such chemical should be included in a relevant Schedule of chemicals in the Convention.

2/ A proposal was made to the effect that the definition would not include any facility at which a chemical defined under subparagraph (a) (i) (2) above is produced as an unavoidable by-product in the manufacture of a chemical which has a use for Purposes Not Prohibited Under the Convention. Such a facility should be subject to the declarations and the verification provisions provided for under Annex 2 to Article VI, and the by-products defined under subparagraph (a) (i) (2) above should be destroyed under international verification. This proposal needs further consideration.

5. "Purposes Not Prohibited Under the Convention" means:

(a) industrial, agricultural, research, medical, pharmaceutical or other peaceful purposes, domestic law enforcement and riot control purposes; and military purposes not connected with the use of chemical weapons;

(b) protective purposes, namely those purposes directly related to protection against chemical weapons.

6. "Production Capacity" means:

the annual quantitative potential for manufacturing a specific substance on the basis of the technological process actually used or, in the case of processes not yet operational, planned to be used at the facility;

for the purpose of the Convention, the production capacity is taken to be equal to the nameplate capacity or, if the nameplate capacity is not available, to the design capacity. The nameplate capacity is the product output under conditions optimized for maximum quantity for the production facility, demonstrated by (a) test-run(s). The design capacity is the corresponding theoretically calculated product output.

III. DECLARATIONS 1/ 2/

1. Each State Party shall submit to the Organization, not later than 30 days after the Convention enters into force for it, the following declarations:

(a) Chemical Weapons 3/ 4/

- (i) whether it has any chemical weapons under its jurisdiction or control anywhere;
- (ii) whether it has on its territory any chemical weapons under the jurisdiction or control of others, including a State not Party to the Convention;
- (iii) whether it has transferred or received any chemical weapons and whether it has transferred to or received from anyone the control over such weapons since 1 January 1946.

(b) Chemical Weapons Production Facilities

- (i) whether it has or has had any chemical weapons production facilities under its jurisdiction or control anywhere;
- (ii) whether it has or has had any chemical weapons production facilities on its territory under the jurisdiction or control of others, including a State not Party to this Convention;

1/ A view was expressed that the need for this Article and its Annex requires further consideration.

2/ The view was expressed that, in light of the objective of the Convention, namely, the complete prohibition and thorough destruction of all chemical weapons, further consideration is needed on all aspects of chemical weapons relevant to this Article, including provisions concerning the old chemical weapons abandoned on the territories of other States.

3/ It was proposed that States Parties should declare whether they have discovered any chemical weapons abandoned, stockpiled or otherwise left by other States Parties on their territories without their consent or knowledge; and whether they have abandoned, stockpiled or otherwise left chemical weapons on the territories of other States during and/or since World War II.

4/ The question of old chemical weapons was subject to consultations during the 1990 session. The outcome of these consultations can be found in Appendix II.

- (iii) whether it has transferred or received any equipment for the production of chemical weapons [and documentation relevant to the production of chemical weapons] since 1 January 1946, and whether it has transferred to, or received from, anyone the control of such equipment [and documentation].

(c) Other declarations

The precise location, nature and general scope of activities of any facility and establishment 1/ on its territory or under its jurisdiction or under its control anywhere designed, constructed or used since [1 January 1946] for development of chemical weapons, inter alia, laboratories and test and evaluation sites.

2. Each State Party making affirmative statements in regard to any of the provisions under subparagraphs 1 (a) and 1 (b) of this Article shall carry out all relevant measures envisaged in any or all of Articles IV and V.

1/ The scope of the phrase "any facility and establishment" is to be clarified and an appropriate formulation found.

IV. CHEMICAL WEAPONS 1/

1. The provisions of this Article and its Annex shall apply to any and all chemical weapons 2/ under the jurisdiction or control of a State Party, regardless of location, including those on the territory of another State.
2. Each State Party, within 30 days after the Convention enters into force for it, shall submit a declaration which:
 - (a) specifies the precise location, aggregate quantity and detailed inventory of any chemical weapons under its jurisdiction or control;
 - (b) reports any chemical weapons on its territory under the jurisdiction or control of others, including a State not Party to this Convention;
 - (c) specifies any transfer or receipt by the State Party of any chemical weapons since 1 January 1946 or any transfer of control by that State Party of such weapons; and
 - (d) provides its general plan for destruction of its chemical weapons.
3. Each State Party shall, immediately after the declaration under paragraph 2 of this Article has been submitted, provide access to its chemical weapons for the purpose of systematic international on-site verification of the declaration through on-site inspection. Thereafter, each State Party shall ensure, through access to its chemical weapons for the purpose of systematic international on-site verification and through on-site inspection and continuous monitoring with on-site instruments, that the chemical weapons are not removed except to a destruction facility.

1/ The view was expressed that the provisions of this Article, as they are directly related to the universality of the Convention, should be taken in connection with Articles on Scope and Duration. In this regard, document CD/CW/WP.314 contained in the "Other Documents" Section of Appendix II, proposes that the Convention shall be permanent in character and shall continue in force indefinitely. It also states that the obligations flowing from the Convention shall cease for States Parties not possessing chemical weapons if, 90 days after the completion of the period of destruction, the Organization could not declare that all the States Parties have carried out their obligations specified in Article I. On the other hand, the destruction of chemical weapons should take into account provisions relating to the environment as proposed in document CD/CW/WP.313.

2/ The issue concerning the destruction of the chemical weapons abandoned, stockpiled or otherwise left over on the territory of a State Party by another State Party or State, without the consent or knowledge of the former, needs to be considered and resolved.

4. Each State Party shall submit detailed plans for the destruction of chemical weapons not later than six months before each destruction period begins. The detailed plans shall encompass all stocks to be destroyed during the next coming period, and shall include the precise location and the detailed composition of the chemical weapons which are subject to destruction during that period.

5. Each State Party undertakes to co-operate [,as appropriate,] with other States Parties that request information or assistance on a bilateral basis or through the Technical Secretariat regarding methods and technologies for the safe and efficient destruction of chemical weapons. 1/

6. Each State Party shall:

(a) destroy all 2/ chemical weapons pursuant to the order of destruction specified in the Annex to Article IV, beginning not later than one year from the date the Convention enters into force for it, and finishing not later than 10 years after the Convention enters into force; however, a State party is not precluded from destroying its chemical weapons at a faster pace; 3/

1/ This provision will need to be further considered once the number of States Parties possessing chemical weapons becomes clearer.

2/ The issue concerning the destruction of the chemical weapons abandoned, stockpiled or otherwise left over on the territory of a State Party by another State Party or State, without the consent or knowledge of the former, needs to be considered and resolved.

3/ Some delegations noted the need to provide for universality of the Convention in connection with the concern that, in light of national security interests, if States Parties are to fully destroy their chemical weapons, they must make sure that other States would not still pose a chemical weapons threat. In this regard, document CD/CW/WP.303, which is contained in the "Other Documents" Section of Appendix II, proposes that a Special Conference be held at the end of the eighth year after the entry into force of the Convention pursuant to Article VIII, to consider the question of the participation in the Convention at that time, and to take a decision as to whether the participation in the Convention is sufficient for proceeding to the total elimination of all remaining chemical weapon stocks over the subsequent two years.

The Group of 21 has objected to the proposals contained in document CD/CW/WP.303. The Group of 21 considers that universal adherence to the Convention cannot be achieved through partial destruction of chemical weapons. This view is contained in the statement of the Group of 21 at the 567th plenary meeting of the Conference on Disarmament on 24 July 1990 which can be found in the "Other Documents" Section of Appendix II.

(b) provide information annually regarding the implementation of its plans for destruction of chemical weapons; and

(c) certify, not later than 30 days after the destruction process has been completed, that all chemical weapons have been destroyed.

7. Each State Party shall provide access to any chemical weapons destruction facilities and the facilities' storage for the purpose of systematic international on-site verification of destruction through the continuous presence of inspectors and continuous monitoring with on-site instruments, in accordance with the Annex to Article IV.

8. Any chemical weapons discovered by a State Party after the initial declaration of chemical weapons shall be reported, secured and destroyed, as provided in the Annex to Article IV. 1/ 2/

9. All locations where chemical weapons are stored or destroyed shall be subject to systematic international on-site verification, through on-site inspection and monitoring with on-site instruments in accordance with the Annex to Article IV.

10. Any State Party which has on its territory chemical weapons which are under the control of a State that is not a Party to this Convention shall ensure that such weapons are removed from its territory not later than 30 days after the date on which the Convention entered into force for it.

11. The declaration, plans and information submitted by each State Party under this Article shall be made in accordance with the Annex to Article III and the Annex to Article IV.

[12. Reminder: undiminished security during the destruction period.] 3/

1/ Consultations were carried out on this issue. The results are reflected in CD/CW/WP.177/Rev.1. Different views were expressed, inter alia, on the question of the responsibility for the destruction of these weapons. Further work is needed.

2/ For some delegations, the question of the applicability of this Annex to obsolete chemical weapons (ordnances) retrieved from the combat zones of World War I will have to be resolved later.

3/ The question of the proper place in the text of the Convention for provisions concerning undiminished security during the destruction period is to be further discussed.

V. CHEMICAL WEAPONS PRODUCTION FACILITIES

1. The provisions of this Article shall apply to any and all chemical weapons production facilities under the jurisdiction or control of a State Party, regardless of location. ^{1/}

2. Each State Party with any chemical weapons production facility shall cease immediately all activity at each chemical weapons production facility except that required for closure.

3. No State Party shall construct any new chemical weapons production facility or modify any existing facility for the purpose of chemical weapons production or for any other purpose prohibited by the Convention.

4. Each State Party, within 30 days after the Convention enters into force for it, shall submit a declaration which:

(a) specifies any chemical weapons production facilities under its jurisdiction or control, or on its territory under the control of others, including a State not Party to this Convention, at any time since 1 January 1946;

(b) specifies any transfer or any receipt by the State Party of any equipment for the production of chemical weapons [and documentation relevant to the production of chemical weapons] since 1 January 1946 or any transfer of control by that Party of such equipment [and documentation];

(c) specifies actions to be taken for closure of each chemical weapons production facility;

(d) outlines its general plan for destruction for each chemical weapons production facility; and

(e) outlines its general plan for any temporary conversion of any chemical weapons production facility into a facility for destruction of chemical weapons.

^{1/} It is understood that the above provisions also apply to any facility on the territory of another State [regardless of ownership and form of contract, on the basis of which they have been set up and functioned for the purposes of production of chemical weapons].

5. Each State Party shall, immediately after the declaration under paragraph 4 has been submitted, provide access to each chemical weapons production facility for the purpose of systematic international on-site verification of the declaration through on-site inspection.

6. Each State Party shall:

(a) close within three months after the Convention enters into force for it, each chemical weapons production facility in a manner that will render each facility inoperable and give notice thereof; and

(b) provide access to each chemical weapons production facility, subsequent to closure, for the purpose of systematic international on-site verification through periodic on-site inspection and continuous monitoring with on-site instruments in order to ensure that the facility remains closed and is subsequently destroyed.

7. Each State Party shall submit detailed plans for destruction of each chemical weapons production facility not later than 6 months before the destruction of the facility begins.

8. Each State Party shall:

(a) destroy all chemical weapons production facilities, and related facilities and equipment as specified in Section III-D-2 of the Annex to Article V, in accordance with the order of destruction specified in that Annex, beginning not later than one year from the date the Convention enters into force for it, and finishing not later than 10 years after the Convention enters into force; however, a State Party is not precluded from destroying its chemical weapons production facilities at a faster pace.

(b) provide information annually regarding the implementation of its plans for the destruction of its chemical weapons production facilities, and

(c) certify, not later than 30 days after the destruction process has been completed, that its chemical weapons production facilities have been destroyed.

9. A chemical weapons production facility may be temporarily converted for destruction of chemical weapons in accordance with the provisions of the Annex to Article V. Such a converted facility must be destroyed as soon as it is no longer in use for destruction of chemical weapons and, in any case, not later than 10 years after the Convention enters into force.

10. Each State Party shall submit all chemical weapons production facilities to systematic international on-site verification through on-site inspection and monitoring with on-site instruments in accordance with the Annex to Article V.

11. The declaration, plans and information submitted by each State Party under this Article shall be made in accordance with the Annex to Article V.

[12. Reminder: undiminished security during the destruction period.] 1/

1/ The question of the proper place in the text of the Convention for provisions concerning undiminished security during the destruction period is to be further discussed.

VI. ACTIVITIES NOT PROHIBITED BY THE CONVENTION 1/ 2/ 3/ 4/

1. Each State Party:

(a) has the right, subject to the provisions of this Convention, to develop, produce, otherwise acquire, retain, transfer and use toxic chemicals and their precursors for purposes not prohibited by the Convention.

(b) shall ensure that toxic chemicals and their precursors are not developed, produced, otherwise acquired, retained, transferred, or used within its territory or anywhere under its jurisdiction or control for purposes prohibited by the Convention.

2. Toxic chemicals and their precursors listed in Schedules 1, 2A, 2B and 3 in the Annex on Chemicals which could be used for purposes prohibited by the Convention, as well as facilities which produce, process or consume these toxic chemicals or precursors, shall be subject to international monitoring as provided in Annexes 1, 2 and 3 to this Article.

The schedules of chemicals contained in the Annex on Chemicals may be revised according to part IV to that Annex.

3. Within 30 days of the entry into force of the Convention for it, each State Party shall declare data on relevant chemicals and the facilities which produce them, in accordance with Annexes 1, 2 and 3 to this Article.

4. Each State Party shall make an annual declaration regarding the relevant chemicals in accordance with Annexes 1, 2 and 3 to this Article.

1/ This Article and its Annexes 2 and 3 need further consideration on the basis of CD/CW/WP.256.

2/ One delegation considers that the terminology used in this Article and its annexes should be consistent with the final definition of chemical weapons to be agreed upon.

3/ One delegation expressed the view that the question of collection and forwarding of data and other information to verify non-production requires further consideration. This delegation made reference to the Working Paper CD/CW/WP.159 of 19 March 1987, which includes draft elements for inclusion in the rolling text.

4/ The view was expressed that the provisions of this Article should be considered in the light of the proposal regarding environmental concerns contained in document CD/CW/WP.313.

5. Each State Party undertakes to subject chemicals listed in Schedule 1 and facilities specified in Annex 1 to this Article to the measures contained in that Annex.
6. Each State Party undertakes to subject chemicals listed in Schedule 2, Parts A and B and facilities declared under Annex 2 to this Article to monitoring by data reporting and routine systematic international on-site verification, through on-site inspection and use of on-site instruments as long as production and processing are not impaired.
7. Each State Party undertakes to subject chemicals listed in Schedule 3 and facilities declared under Annex 3 to this Article to monitoring by data reporting.
8. The provisions of this Article shall be implemented in a manner designed in so far as possible to avoid hampering the economic or technological development of States Parties to the Convention and international co-operation in the field of peaceful chemical activities including the international exchange of scientific and technical information and chemicals and equipment for the production, processing or use of chemicals for peaceful purposes in accordance with the provisions of the Convention. ^{1/}
9. In conducting verification activities, the Technical Secretariat shall avoid undue intrusion into the State Party's peaceful chemical activities.
10. For the purpose of on-site verification, each State Party shall grant to the Inspectors access to facilities as required in the Annexes to this Article.

^{1/} The inclusion of this paragraph in this Article is to be considered further.

VII. NATIONAL IMPLEMENTATION MEASURES ^{1/}

General undertakings

1. Each State Party to this Convention shall adopt the necessary measures in accordance with its constitutional processes to implement this Convention and, in particular, to prohibit and prevent anywhere under its jurisdiction or control any activity that a State Party to this Convention is prohibited from conducting by this Convention.

Relations between the State Party and the Organization

2. Each State Party shall inform the Organization of the legislative and administrative measures taken to implement the Convention.

3. States Parties shall treat as confidential and afford special handling to information which they receive in connection with the implementation of the Convention from the Organization. They shall treat such information exclusively in connection with their rights and obligations under the Convention and in accordance with the provisions set out in the Annex on the Protection of Confidential Information. ^{2/}

4. In order to fulfil its obligations under the Convention, each State Party shall appoint a National Authority and inform the Organization of the designated National Authority at the time that the Convention enters into force for it. The National Authority shall serve as the national focal point for effective liaison with the Organization and other States Parties. ^{3/}

5. Each State Party undertakes to co-operate with the Organization in the exercise of all its functions and in particular to provide assistance to the Technical Secretariat including data reporting, assistance for international on-site inspections, provided for in this Convention, and a response to all its requests for the provision of expertise, information and laboratory support.

^{1/} The view was expressed that the placement of Article VII needs to be discussed further.

^{2/} A view was expressed that further discussion on this subject is necessary.

^{3/} The view was expressed that the role of the National Authority might need to be further developed.

VIII. THE ORGANIZATION 1/

A. General Provisions

1. The States Parties to the Convention hereby establish the Organization for the Prohibition of Chemical Weapons, to achieve the objectives of the Convention, to ensure the implementation of its provisions, including those for international verification of compliance with it, and to provide a forum for consultation and co-operation among States Parties. 2/
2. All States Parties to the Convention shall be members of the Organization.
3. The seat of the headquarters of the Organization shall be ...
4. There are hereby established as the organs of the Organization the Conference of the States Parties, 3/ the Executive Council and the Technical Secretariat.
5. The verification activities described in this Convention shall be conducted in the least intrusive manner possible consistent with the timely and efficient accomplishment of their objectives. The Organization shall request only the information and data necessary to fulfil its responsibilities under the Convention. It shall take every precaution to protect the confidentiality of information on civil and military activities and facilities coming to its knowledge in the implementation of the Convention and, in particular, shall abide by the provisions set out in the Annex on the Protection of Confidential Information. 4/

1/ One delegation has expressed reservations with regard to the approach being given to the concept of an Organization for the Prohibition of Chemical Weapons, or any other similar solution for this purpose, and has expressed the view that before proceeding further in the examination of this question, there is a need to define the principles that will govern the financing of such an Organization.

2/ A view was expressed that the achievement of these objectives should be sought in close co-operation with the United Nations.

3/ A view was expressed that the designation of this highest organ, to which many references are made throughout the text, should be determined only after further consideration of other provisions of the Convention and that, in this connection, the possibility of using the designation "the General Conference" may also be considered.

4/ A view was expressed that further discussion on this subject is necessary.

B. Conference of the States Parties

(a) Composition, procedure and decision-making

1. The Conference of the States Parties shall be composed of all the States Parties to this Convention. Each State Party to the Convention shall have one representative in the Conference of the States Parties, who may be accompanied by alternates and advisers.

2. The first session of the Conference of the States Parties shall be convened by the Depositary at (venue) not later than 30 days after the entry into force of the Convention.

3. The Conference of the States Parties shall meet in regular sessions which should be held annually unless it decides otherwise. Special sessions shall be convened:

- when decided by the Conference of the States Parties;
- when requested by the Executive Council; or
- when requested by any State Party [and supported by [5-10] [one third of the] States Parties].

The special session shall be convened not later than [30-45] days after lodgement of the request with the Director-General unless specified otherwise in the request.

4. Sessions shall take place at the headquarters of the Organization unless the Conference of the States Parties decides otherwise.

5. The Conference of the States Parties shall adopt its rules of procedure. At the beginning of each regular session, it shall elect its Chairman and such other officers as may be required. They shall hold office until a new Chairman and other officers are elected at the next regular session.

6. A majority of the members of the Conference of the States Parties shall constitute a quorum.

7. Each member of the Conference of the States Parties shall have one vote.

8. The Conference of the States Parties shall take decisions on questions of procedure, including decisions to convene special sessions of the Conference, by a simple majority of the members present and voting. Decisions on matters of substance should be taken as far as possible by consensus. If consensus is not attainable when an issue comes up for decision, the Chairman shall defer any vote for 24 hours and during this period of deferment shall make every effort to facilitate achievement of consensus, and shall report to the Conference prior to the end of the period. If consensus is not possible at

the end of 24 hours, the Conference shall take the decision by a two-thirds majority of members present and voting unless otherwise specified in the Convention. When the issue arises as to whether the question is one of substance or not, that question shall be treated as one of substance unless otherwise decided by the Conference by the majority required for decisions on questions of substance.

(b) Powers and functions

1. The Conference of the States Parties shall be the principal organ of the Organization. It shall consider any questions, matters or issues within the scope of the Convention, including those relating to the powers and functions of the Executive Council and Technical Secretariat. It may make recommendations and take decisions ^{1/} on any questions, matters or issues related to the Convention raised by a State Party or brought to its attention by the Executive Council.

2. The Conference of the States Parties shall oversee the implementation of the Convention, and act in order to promote its objectives. It shall review compliance with it. It shall also oversee the activities of the Executive Council and the Technical Secretariat and may issue guidelines in accordance with the Convention to either of them in the exercise of their functions.

3. In addition, the powers and functions of the Conference of the States Parties shall be:

(i) To consider and adopt at its regular sessions the report of the Organization, consider other reports and consider and adopt the programme and budget of the Organization, submitted by the Executive Council;

(ii) to [encourage] [promote] international co-operation for peaceful purposes in the chemical field;

^{1/} A view was expressed that the report of a fact-finding inquiry should not be put to a vote, nor should any decision be taken as to whether a Party is complying with the provisions of the Convention.

- (iii) to review scientific and technological developments which could affect the operation of the Convention and, in this context, direct the Director-General to establish a Scientific Advisory Board 1/ to enable him, in the performance of his functions, to render to the Conference of the States Parties, the Executive Council or States Parties independent and specialized advice in areas of science and technology relevant to the Convention. 2/
- (iv) to decide on the scale of financial contributions to be paid by States Parties; 3/
- (v) to elect the members of the Executive Council;
- (vi) to appoint the Director-General of the Technical Secretariat;
- (vii) to approve the rules of procedure of the Executive Council submitted by the latter;
- (viii) to establish such subsidiary organs as it finds necessary for the exercise of its functions in accordance with this Convention. 4/
- (ix) ... 5/

1/ A view was expressed that the subject needs further examination, including the relationship with other organs of the Organization and its financial implications.

2/ Terms of reference for the Scientific Advisory Board should be elaborated once the Chemical Weapons Convention has entered into force. Several delegations considered that this should be done before the appointment of the members of the Scientific Advisory Board.

3/ The entire problem of the costs of the Organization needs to be considered.

4/ It has been proposed that a Fact-finding Panel be established as a subsidiary body.

5/ The question of functions relating to the implementation of Articles X and XI will be considered at a later stage. Other functions, e.g. the action to be taken in the event of non-compliance by a State Party, could be included as well.

4. The Conference of the States Parties shall, after the expiry of 5 and 10 years from the date of entry into force of this Convention and at such other times within that time period as may be agreed on, meet in special sessions to undertake reviews of the operation of this Convention. 1/ Such reviews shall take into account any relevant scientific and technological developments. At intervals of five years thereafter, unless otherwise agreed upon by a majority of the States Parties, further sessions of the Conference of the States Parties shall be convened with the same objective. 2/

[5. The Chairman of the Conference of the States Parties shall serve as non-voting Chairman of the Executive Council.]

1/ Some delegations noted the need to provide for universality of the Convention in connection with the concern that, in light of national security interests, if States Parties are to fully destroy their chemical weapons, they must make sure that other States would not still pose a chemical weapons threat. In this regard, document CD/CW/WP.303, which is contained in the "Other Documents" Section of Appendix II, proposes that a Special Conference be held at the end of the eighth year after the entry into force of the Convention pursuant to Article VIII, to consider the question of the participation in the Convention at that time, and to take a decision as to whether the participation in the Convention is sufficient for proceeding to the total elimination of all remaining chemical weapon stocks over the subsequent two years.

The Group of 21 has objected to the proposals contained in document CD/CW/WP.303. The Group of 21 considers that universal adherence to the Convention cannot be achieved through partial destruction of chemical weapons. This view is contained in the statement of the Group of 21 at the 567th plenary meeting of the Conference on Disarmament on 24 July 1990 which can be found in the "Other Documents" Section of Appendix II.

2/ The placement and wording of this provision as well as the possible need for separate review conferences require further consideration.

C. The Executive Council

(a) Composition, procedure and decision-making ^{1/}

(To be elaborated)

(b) Powers and functions

1. The Executive Council shall be the executive organ of the Conference of the States Parties, to which it shall be responsible. It shall carry out the powers and functions entrusted to it under the Convention and its Annexes, as well as such functions delegated to it by the Conference of the States Parties. In so doing, it shall act in conformity with the recommendations, decisions and guidelines of the Conference of the States Parties and assure their continuous and proper implementation.

2. In particular, the Executive Council shall:

(a) promote the effective implementation of, and compliance with, the Convention;

(b) supervise the activities of the Technical Secretariat;

(c) co-operate with the appropriate national authorities of States Parties and facilitate consultations and co-operation among States Parties at their request;

(d) consider any issue or matter within its competence, affecting the Convention and its implementation, including concerns regarding compliance, and cases of non-compliance, ^{2/} and, as appropriate, inform States Parties and bring the issue or matter to the attention of the Conference of the States Parties;

(e) consider and submit to the Conference of the States Parties the draft programme and budget of the Organization;

^{1/} Consultations on this issue were carried out by the Chairman of the Ad hoc Committee for the 1989 session. The outcome of these consultations is contained in Appendix II.

^{2/} A view was expressed that the report of a fact-finding inquiry should not be put to a vote, nor should any decision be taken as to whether a Party is complying with the provisions of the Convention.

(f) consider and submit to the Conference of the States Parties the draft report of the Organization on the implementation of the Convention, the report on the performance of its own activities and such special reports as it deems necessary or which the Conference of the States Parties may request;

(g) conclude agreements with States and international organizations on behalf of the Organization, subject to approval by the Conference of the States Parties, and approve agreements relating to the implementation of verification activities, negotiated by the Director-General of the Technical Secretariat with States Parties;

(h) (i) meet for regular sessions. Between regular sessions, it shall meet as often as may be required for the fulfilment of its functions;

[(ii) elect its Chairman;]

(iii) elaborate and submit its rules of Procedure to the Conference of the States Parties for approval;

(iv) make arrangements for the sessions of the Conference of the States Parties including the preparation of a draft agenda.

3. The Executive Council may request the convening of a special session of the Conference of the States Parties. 1/

D. Technical Secretariat

1. A Technical Secretariat shall be established to assist the Conference of the States Parties and the Executive Council in the performance of their functions. The Technical Secretariat shall carry out the functions entrusted to it under the Convention and its Annexes, as well as such functions assigned to it by the Conference of the States Parties and the Executive Council.

2. In particular, the Technical Secretariat shall:

(a) address and receive communications on behalf of the Organization to and from States Parties on matters pertaining to the implementation of the Convention;

(b) negotiate the subsidiary agreements with States Parties relating to systematic international on-site verification for approval by the Executive Council;

1/ It has been proposed that the Executive Council should request the convening of a special session of the Conference of the States Parties whenever obligations set forth in Article I of the Convention are violated.

(c) execute international verification measure provided for in the Convention; ^{1/}

(d) inform the Executive Council of any problems which have arisen with regard to the execution of its functions, and of [doubts, ambiguities or uncertainties about compliance with the Convention] which have come to its notice in the performance of its verification activities and/or which it has been unable to resolve or clarify through its consultations with the State Party concerned;

(e) provide technical assistance and technical evaluation to States Parties [in accordance with] [in the implementation of the provisions of] the Convention, including evaluations of listed and unlisted chemicals. ^{2/}

(f) prepare and submit to the Executive Council the draft programme and budget of the Organization;

(g) prepare and submit to the Executive Council the draft report of the Organization on the implementation of the Convention and such other reports as the Executive Council and/or the Conference of the States Parties may request;

(h) provide administrative and technical support ^{2/} to the Conference of the States Parties, the Executive Council and other subsidiary bodies.

3. The Inspectorate shall be a unit of the Technical Secretariat and shall act under the supervision of the Director-General of the Technical Secretariat.

4. The Technical Secretariat shall comprise a Director-General, who shall be its head and chief administrative officer, and inspectors and such scientific, technical and other personnel as may be required.

^{1/} It has been suggested that the Inspectorate may request inspections for some insufficiently clear situations in the context of their systematic verification activities.

^{2/} The phrasing of this paragraph needs to be considered further in the light of the elaboration of the relevant provision of the Convention. It has been suggested that the technical assistance or evaluation may relate, inter alia, to developing technical procedures, improving the effectiveness of verification methods.

5. The Director-General of the Technical Secretariat shall be appointed by the Conference of the States Parties [upon the recommendation of the Executive Council] 1/ for [4] [5] years [renewable for one further term, but not thereafter]. The Director-General shall be responsible to the Conference of the States Parties and the Executive Council for the appointment of the staff and the organization and functioning of the Technical Secretariat. The paramount consideration in the employment of the staff and in the determination of the conditions of services shall be the necessity of securing the highest standards of efficiency, competence and integrity. Only citizens of States Parties shall serve as inspectors or as other members of the professional and clerical staff. Due regard shall be paid to the importance of recruiting the staff on as wide a geographical basis as possible. Recruitment shall be guided by the principle that the staff shall be kept to a minimum necessary for the proper execution of its responsibilities.

6. Consequent to paragraph (b) 3 (iii) in Section B above, the Director-General is responsible for the organization and functioning of the Scientific Advisory Board. He shall, in consultation with States Parties, appoint members of the Scientific Advisory Board who shall serve in their individual capacity. The members of the Board shall be appointed on the basis of their expertise in the particular scientific fields relevant to the implementation of the Convention. The Director-General may also, as appropriate, in consultation with members of the Board, establish temporary working groups of scientific experts to provide recommendations on specific issues. In regard to the above, States Parties may submit lists of experts to the Director-General.

7. In the performance of their duties, the Director-General of the Technical Secretariat, the inspectors and other members of the staff shall not seek or receive instructions from any Government or from any other source external to the Organization. They shall refrain from any action which might reflect on their positions as international officers responsible only to the Conference of the States Parties and the Executive Council.

8. Each State Party shall undertake to respect the exclusively international character of the responsibilities of the Director-General of the Technical Secretariat, the inspectors and the other members of the staff and not seek to influence them in the discharge of their responsibilities.

1/ It has been proposed that the Director-General of the Technical Secretariat be appointed by the Conference of the States Parties upon the recommendation of the Secretary-General of the United Nations.

IX. CONSULTATIONS, CO-OPERATION AND FACT-FINDING ^{1/}

1. States Parties shall consult and co-operate, directly among themselves, or through the Organization or other appropriate international procedures, including procedures within the framework of the United Nations and in accordance with its Charter, on any matter which may be raised relating to the objectives or the implementation of the provisions of this Convention.

2. States Parties to the Convention shall make every possible effort to clarify and resolve, through exchange of information and consultations among them, any matter which may cause doubt about compliance with this Convention, or which gives rise to concerns about a related matter which may be considered ambiguous. A Party which receives a request from another Party for clarification of any matter which the requesting Party believes causes such doubts or concerns shall provide the requesting Party, within ... days of the request, with information sufficient to answer the doubts or concerns raised along with an explanation on how the information provided resolves the matter. Nothing in this Convention affects the right of any two or more States Parties to this Convention to arrange by mutual consent for inspections or any other procedures among themselves to clarify and resolve any matter which may cause doubts about compliance or gives rise to concerns about a related matter which may be considered ambiguous. Such arrangements shall not affect the rights and obligations of any State Party under other provisions of this Convention.

Procedure for requesting clarification

3. A State Party shall have the right to request the Executive Council to assist in clarifying any situation which may be considered ambiguous or which gives rise to doubts about the compliance of another State Party with the Convention. The Executive Council shall provide appropriate information and data in its possession relevant to the situation which can dispel such doubts.

4. A State Party shall have the right to request the Executive Council to obtain clarification from another State Party on any situation which may be considered ambiguous or which gives rise to doubts about its compliance with the Convention. In such a case, the following shall apply:

(a) The Executive Council shall forward the request for clarification to the State Party concerned within 24 hours of its receipt.

(b) The requested State Party shall provide the clarification to the Executive Council within seven days of the receipt of the request.

^{1/} The Chairman of the Ad hoc Committee for the 1990 session undertook open-ended consultations on Article IX as a whole.

(c) The Executive Council shall forward the clarification to the requesting State Party within 24 hours of its receipt.

(d) In the event that the requesting State Party deems the clarification to be inadequate, it may request the Executive Council to obtain from the requested State Party further clarification.

(e) For the purpose of obtaining further clarification requested under paragraph 4 (d), the Executive Council may set up a group of experts to examine all available information and data relevant to the situation causing the doubt. The group of experts shall submit a factual report to the Executive Council on its findings.

(f) Should the requesting State Party consider the clarification obtained under paragraphs 4 (d) and 4 (e) to be unsatisfactory, it may request a special meeting of the Executive Council in which States Parties involved not members of the Executive Council shall be entitled to take part. In such a special meeting, the Executive Council shall consider the matter and may recommend any measure it deems appropriate to cope with the situation.

5. A State Party shall also have the right to request the Executive Council to clarify any situation which has been considered ambiguous or has given rise to doubts about its compliance with the Convention. The Executive Council shall respond by providing such assistance as appropriate.

6. The Executive Council shall inform the States Parties to this Convention about any request for clarification provided in this Article.

7. If the doubts or concerns of a State Party about compliance have not been resolved within two months after the submission of the request for clarification to the Executive Council, or it believes its doubts warrant urgent consideration, without necessarily exercising its right to the challenge procedure, it may request a special session of the Conference of the States Parties in accordance with Article VIII. In such a special session, the Conference of the States Parties shall consider the matter and may recommend any measure it deems appropriate to cope with the situation.

Procedure for requesting a fact-finding mission

The further contents of Article IX remain to be elaborated. 1/

1/ Consultations on this issue were carried out by the Chairman of the Ad Hoc Committee for the 1987 session and the Chairman of Group C for the 1988 session. The state of affairs was contained in CD/952. The Chairman of the Ad hoc Committee for the 1989 session undertook consultations on Article IX, Part 2, the outcome of which is contained in Appendix II.

X. ASSISTANCE AND PROTECTION AGAINST CHEMICAL WEAPONS 1/

XI. ECONOMIC AND TECHNOLOGICAL DEVELOPMENT 1/

XII. RELATION TO OTHER INTERNATIONAL AGREEMENTS 2/

Nothing in this Convention will be interpreted as in any way impairing the obligations assumed under the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925 and in the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, signed at London, Moscow and Washington on 10 April 1972.

XIII. AMENDMENTS 3/

1. Any State Party may propose amendments to this Convention 4/, including its Annexes and Protocols. Proposals for amendments shall be subject to the procedures in paragraphs 2 and 3 of this Article except proposals concerning provisions subject to a simplified amendment procedure as provided for under paragraphs 4 and 5.

2. The text of a proposed amendment shall be submitted to the Director-General of the Technical Secretariat for circulation to all States Parties of the Convention. It shall be considered only by an Amendment Conference. Such an Amendment Conference shall be convened if one-third or more of the States Parties notify to the Director-General within [...] months of its circulation that they support further consideration of the proposal. The Amendment Conference shall be held immediately following a regular session of the Conference of the States Parties unless the requesting States Parties ask for an earlier meeting. In no case shall an Amendment Conference be held less than 60 days after the circulation of the proposed amendment.

1/ Work on this Article continued. With the aim of facilitating further consideration of the issues involved, the text reflecting the 1989 stage of discussion is included in Appendix II.

2/ During the 1989 session, work on this Article was continued. With the aim of facilitating further consideration of the issues involved, the text reflecting the current stage of discussion is included in Appendix II.

3/ The view was expressed that this Article needs further development on the basis of future consideration.

4/ The view was expressed that provisions which, if amended, would change the character of the Convention, should not be subject to amendments.

3. Amendments shall enter into force for all States Parties to the Convention 30 days after deposit of the instruments of ratification or acceptance by all the States Parties referred to under (ii) below:

(i) when adopted by the Amendment Conference by a positive vote of a majority 1/ of States Parties to the Convention with no State Party casting a negative vote; 2/ 3/ 4/

(ii) and ratified or accepted by all those States Parties casting a positive vote at the Amendment Conference;

4. The following provisions shall be subject to a simplified amendment procedure ... 2/

5. (i) Proposals for amendments under a simplified amendment procedure shall be transmitted together with the necessary information to the Director-General of the Technical Secretariat. Additional information for the evaluation of the proposal may be provided by any State Party and the Director-General of the Technical Secretariat. The Director-General of the Technical Secretariat shall promptly communicate any such proposals and information to all States Parties and the Executive Council.

(ii) The Executive Council shall examine the proposal in the light of all information available to it. Within [90] days of its receipt, the Executive Council shall notify its recommendation to all States Parties for consideration. States Parties shall acknowledge receipt within ... days.

1/ The view was expressed that "majority" needs further clarification.

2/ The view was expressed that the adoption of an amendment by consensus should be further considered. Another view was expressed that decisions on proposed amendments could also be taken by a qualified majority, in particular, on amendments to (parts of) Article VIII.

3/ The view was expressed that the effect of allowing as little as one negative vote to prevent the adoption of a proposal for an amendment might in practice make the Convention unamendable.

4/ Concerns were expressed as to the fact that with the proposed provision a State Party could be bound by an amendment without having approved or ratified it.

5/ The list of relevant provisions has to be established at a later stage.

- (iii) If the Executive Council recommends to all States Parties that the proposal be adopted, it shall be considered approved / if no State Party objects / if no more than [x] States Parties object to it / within [30] days after receipt of the recommendation. If the Executive Council recommends that the proposal be rejected, it shall be considered rejected if / no State Party objects / no more than [x] States Parties object / to the rejection within [30] days after receipt of the recommendation. 1/
- (iv) If a recommendation of the Executive Council does not meet with the acceptance required under sub-paragraph (iii), a decision on the proposal shall be taken as a matter of substance by the Conference of the States Parties at its next session.
- (v) The Executive Council may itself propose amendments, making use of information provided by the Director-General of the Technical Secretariat. In such cases, sub-paragraphs (iii) and (iv) shall be applied accordingly.
- (vi) The Director-General shall notify all States Parties of any decision under this paragraph.
- (vii) An amendment approved under this procedure shall enter into force for all States Parties [60] days after notification of approval.

XIV. DURATION AND WITHDRAWAL 2/

1. This Convention shall be of unlimited duration.
2. Each State Party to this Convention shall, in exercising its national sovereignty, have the right to withdraw from the Convention if it decides that extraordinary events, related to the subject matter of the Convention, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other States Parties to the Convention and the (United Nations Security Council) (Depositary) three months in advance. 3/ Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.

1/ The view was expressed that this amendment procedure should not constitute a precedent with regard to powers and functioning of the Executive Council.

2/ A view was expressed that the withdrawal of any State Party shall not affect its obligations under Article I of this Convention.

3/ A view was expressed that the question of possibly setting different periods for the purpose of different circumstances relating to withdrawal, instead of a single period, requires further consideration.

The withdrawal of a State Party from this Convention shall not in any way affect the duty of States to continue fulfilling the obligations assumed under any relevant rules of international law, particularly the Geneva Protocol of 17 June 1925.

XV. SIGNATURE

This Convention shall be open for signature for all States before its entry into force at (venue). 1/ 2/

XVI. RATIFICATION

This Convention shall be subject to ratification by States signatories according to their respective constitutional processes.

XVII. ACCESSION

Any State which does not sign the Convention before its entry into force may accede to it at any time. 3/

XVIII. DEPOSITARY 4/

The Secretary-General of the United Nations is hereby designated as the Depositary of this Convention and shall:

1. promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification or of accession and the date of the entry into force of this Convention, and of the receipt of other notices. The Depositary shall immediately upon receipt transmit any notices required by this Convention to every Party;

1/ One delegation expressed the view that the Convention should be open for signature indefinitely.

2/ One delegation was of the view that this Article and the following Articles related to ratification, accession, deposit of instruments and entry into force should be contained under one Article.

3/ One delegation expressed a view that accession would not be necessary.

4/ It is to be discussed if other functions might be entrusted to the Depositary with regard to the special needs of the Convention.

2. transmit duly certified copies of this Convention to the Governments of all signatory and acceding States;
3. register this Convention pursuant to Article 102 of the Charter of the United Nations.

XIX. ENTRY INTO FORCE

(a) This Convention shall enter into force (30) days after the date of the deposit of the (60th) instrument of ratification.

(b) For States whose instruments of ratification or accession are deposited subsequent to the entry forces of this Convention, it shall enter into force on the (30th) day following the date of deposit of their instrument of ratification or accession. ^{1/}

XX. LANGUAGES AND AUTHENTIC TEXTS

This Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

^{1/} It is to be discussed further how to ensure that all "chemical weapons possessing" and "chemical weapons capable" States be among those States whose ratification would be required for the Convention to enter into force.

SETTLEMENT OF DISPUTES 1/

This text has been included on the understanding that the question of whether it shall be a separate Article or be attached to other Articles of the Convention has to be considered further.

1. Disputes which may arise concerning the application or the interpretation of this Convention shall be settled in accordance with the relevant provisions of this Convention and in conformity with the provisions of the Charter of the United Nations. 2/
2. When a dispute arises between two or more Parties relating to the interpretation or application of this Convention, the Parties concerned shall consult together with a view to the expeditious settlement of the dispute by negotiation or by other peaceful means of the Parties choice including recourse to appropriate organs of the Convention and/or, by mutual consent, referral to the International Court of Justice. 3/ The Parties involved shall keep the Executive Council informed of actions being taken.
3. The Executive Council [may] [shall] contribute to the settlement of a dispute by whatever means it deems appropriate, including offering its good offices [,calling upon the Parties to a dispute to start the settlement process of their choice and indicating a time-limit for each phase of the settlement].

1/ The view was expressed that the decision on these provisions shall be taken after finalizing work on Articles VIII, IX and XI.

2/ The view was expressed that the settlement of disputes procedures need further development, and especially that the relationship between a general provision on settlement of disputes and other provisions of importance to this question, in particular Article IX, needs further consideration.

3/ The view was expressed that it should be made clear that the outcome of the procedure selected by the Parties involved should be binding.

4. The Conference of the States Parties shall consider questions related to disputes raised by States Parties or brought to its attention by the Executive Council. The Conference of the States Parties shall, as it finds necessary, establish and/or entrust organs with tasks related to the settlement of these disputes in conformity with Article VIII B.(b).3.(viii). 1/

5. The Conference of the States Parties and the Executive Council are separately empowered, subject to authorization from the General Assembly of the United Nations, to request the International Court of Justice to give an advisory opinion on any legal question arising within the scope of the / Convention / activities of the Organization. 2/

1/ The question whether an Administrative Tribunal should be established under the appropriate provisions of Article VIII needs further consideration.

2/ The relationship between the Organization and the United Nations needs to be further considered, taking into account Article 96, paragraph 2 of the United Nations Charter and Article 65, paragraph 1 of the Statute of the International Court of Justice.

ANNEXES TO THE CONVENTION ON CHEMICALS
ANNEX ON CHEMICALS

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1. Definitions related to precursor chemicals

(a) "super-toxic lethal chemicals" means chemicals which have a median lethal dose which is less than or equal to 0.5 mg/kg (subcutaneous administration) or 1,000 mg-min/m³ (inhalation) or 10 mg/kg (subcutaneous administration) or 20,000 mg-min/m³ (inhalation) when measured by an agreed method set forth in ...

(b) "other harmful chemicals" means (toxic) chemicals not covered by (a) or (b) above, [including toxic chemicals which normally cause temporary incapacitation rather than death] at similar doses to those of which super-toxic lethal chemicals cause ...

(c) "other harmful chemicals" means chemicals which have a median lethal dose which is greater than 0.5 mg/kg (subcutaneous administration) or 10,000 mg-min/m³ (inhalation) ...

ANNEXES

1. Definitions related to precursor chemicals

(a) "Key precursor" means:

a precursor which poses a significant risk to the objectives of the Convention by virtue of its importance in the production of a toxic chemical.

It may possess [possesses] the following characteristics:

- (1) It may play [plays] an important role in determining the toxic properties of a [toxic] chemical prohibited by the Convention [super-toxic lethal chemical].

1/ The final placement of these definitions within the Convention will be decided at a later stage.

1/ It was noted that after such arrangements had mutually been performed, the figures contained in this and the following section might be subject to slight changes in order to cover sulphur mustard gas under the first category.

ANNEX ON CHEMICALS

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ANNEX ON CHEMICALS

I. DEFINITIONS ^{1/}

A. Definitions related to toxicity

(a) "super-toxic lethal chemicals", means chemicals which have a median lethal dose which is less than or equal to 0.5 mg/kg (subcutaneous administration) or 2,000 mg-min/m³ (by inhalation) when measured by an agreed method ^{2/} set forth in ...

["Ultra-toxic chemicals" means super-toxic lethal chemicals which have a median lethal dose which is less than or equal to 0.1 mg/kg.]

[(b) "other lethal chemicals", means chemicals which have a median lethal dose which is greater than 0.5 mg/kg (subcutaneous administration) or 2,000 mg-min/m³ (by inhalation) and less than or equal to 10 mg/kg (subcutaneous administration) or 20,000 mg-min/m³ (by inhalation) when measured by an agreed method set forth in ...

[(c) "other harmful chemicals", means any [toxic] chemicals not covered by (a) or (b) above, [including toxic chemicals which normally cause temporary incapacitation rather than death] [at similar doses to those at which super-toxic lethal chemicals cause death].]

[and "other harmful chemicals", means chemicals which have a median lethal dose which is greater than 10 mg/kg (subcutaneous administration) or 20,000 mg-min/m³ (by inhalation).]

B. Definitions related to precursor chemicals

(a) "Key Precursor" means:

a precursor which poses a significant risk to the objectives of the Convention by virtue of its importance in the production of a toxic chemical.

It may possess [possesses] the following characteristics:

- (i) It may play [plays] an important role in determining the toxic properties of a [toxic chemical prohibited by the Convention] [super-toxic lethal chemical].

^{1/} The final placement of these definitions within the Convention will be decided at a later stage.

^{2/} It was noted that after such measurements had actually been performed, the figures mentioned in this and the following section might be subject to slight changes in order to cover sulphur mustard gas under the first category.

(ii) It may be used in one of the chemical reactions at the final stage of formation of the [toxic chemicals prohibited by the Convention] [super-toxic lethal chemical].

[(iii) It may [is] not be used, or [is] used only in minimal quantities, for permitted purposes.] 1/

[(b) Key component of binary and/or multicomponent chemical systems for chemical weapons means:]

[a precursor which forms a toxic chemical in the binary or multicomponent weapons munition or device and which has the following additional characteristics (to be elaborated):]

1/ The position of this subparagraph should be decided in relation to how some chemicals, for instance, isopropylalcohol, are dealt with in the Convention.

II. SCHEDULES OF CHEMICALS (CAS number)

A. Schedule 1

1. O-Alkyl ($\leq C_{10}$, incl. cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr)-phosphonofluoridates 1/

e.g. Sarin: O-isopropyl methylphosphonofluoridate (107-44-8)
Soman: O-pinacolyl methylphosphonofluoridate (96-64-0)
2. O-Alkyl ($\leq C_{10}$, incl. cycloalkyl) N,N-dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidocyanidates 1/

e.g. Tabun: O-ethyl N,N-dimethylphosphoramidocyanidate (77-81-6)
3. O-Alkyl (H or $\leq C_{10}$, incl. cycloalkyl) S-2-dialkyl (Me, Et, n-Pr or i-Pr)-aminoethyl alkyl (Me, Et, n-Pr or i-Pr) phosphonothiolates and corresponding quaternary ammonium compounds 1/

e.g. VX: O-ethyl S-2-diisopropylaminoethyl methyl phosphonothiolate (50782-69-9)
4. Sulphur mustards [e.g.]:

Mustard gas (H): bis(2-chloroethyl)sulphide (505-60-2)
Sesquimustard (Q): 1,2-bis(2-chloroethylthio)ethane (3563-36-8)
O-Mustard (T): bis(2-chloroethylthioethyl)ether (63918-89-8)
bis(2-chloroethylthio)methane (63869-13-6)
1,3-bis(2-chloroethylthio)-n-propane (63905-10-2)
1,4-bis(2-chloroethylthio)-n-butane
2-Chloroethylchloromethylsulphide (2625-76-5)
5. Lewisites:

Lewisite 1: 2-chlorovinylchloroarsine (541-25-3)
Lewisite 2: bis(2-chlorovinyl)chloroarsine (40334-69-8)
Lewisite 3: tris(2-chlorovinyl)arsine (40334-70-1)
6. Nitrogen mustards:

HN1: bis(2-chloroethyl)ethylamine (538-07-8)
HN2: bis(2-chloroethyl)methylamine (51-75-2)
HN3: tris(2-chloroethyl)amine (555-77-1)

1/ The precise delimitation of this group requires further discussion.

7. 3-Quinuclidinyl benzilate (BZ) 1/ (6581-06-2)
- [8. Saxitoxin 2/ (35523-89-8)]
- [9. Ricin 2/]
10. Alkyl (Me, Et, n-Pr or i-Pr) phosphonyldifluoride 3/
e.g. DF: methylphosphonyldifluoride (676-99-3)
11. O-Alkyl (H or $\leq C_{10}$, incl. cycloalkyl) O-2-dialkyl (Me, Et, n-Pr or i-Pr)-aminoethyl alkyl (Me, Et, N-Pr or i-Pr) phosphonites and corresponding quaternary ammonium compounds 3/
e.g. QL: O-ethyl O-2-diisopropylaminoethyl methylphosphonite (57856-11-8)
- [12. O-Alkyl ($\leq C_{10}$, incl. cycloalkyl) alkyl (Me, Et, n-Pr or i-Pr)-phosphonochloridates 4/ 5/
e.g. Chloro Sarin: O-isopropyl methylphosphonochloridate (1445-76-7)
Chloro Soman: O-pinacolyl methylphosphonochloridate (7040-57-5)]

1/ The desirability of extending this item to include also related chemicals should be further discussed.

2/ The placement of toxins on the Schedule requires further consideration. A view was expressed that relevant toxins should be considered for inclusion in Schedule 2 part B, for example, in a separate section with lower thresholds for declaration and verification compared with other chemicals on that Schedule. Another view was expressed that different toxins could be included in different Schedules in accordance with the guidelines for those Schedules. It was recognized that further consideration also needs to be given to the specific verification requirements with respect to toxin production.

3/ The view was expressed that other members than DF and QL should be put on Schedule 2 part A, where however they are already covered by the first item.

4/ The precise delimitation of this group requires further discussion.

5/ A view was expressed that this group belongs to Schedule 2 part A, where it is already covered by the first item.

- [13. 3,3-Dimethylbutan-2-ol (pinacolyl alcohol) 1/ (464-07-3)]
- B. Schedule 2 part A
1. Chemicals, containing a phosphorus atom to which is bonded one methyl, ethyl or propyl (normal or iso) group [radical] but not further carbon atoms, except for those chemicals listed under Schedule 1. 2/
 2. N,N-Dialkyl (Me, Et, n-Pr or i-Pr) phosphoramidic dihalides
 3. Dialkyl (Me, Et, n-Pr or i-Pr) N,N-dialkyl (Me, Et, n-Pr or i-Pr)-phosphoramidates
 4. Arsenic trichloride (7784-34-1)
 5. 2,2-Diphenyl-2-hydroxyacetic acid 3/ (76-93-7)
 6. Quinuclidin-3-ol 3/ (1619-34-7)

1/ A view was expressed that this chemical should be included in Schedule 2 part A.

2/ The precise delimitation of this group requires further discussion.

3/ If item 7 on Schedule 1 is expanded into a group, a corresponding expansion should be considered for items 5 and 6 on Schedule 2 part A. Item 5 could, e.g., then include:

2-phenyl-2-(phenyl, cyclohexyl, cyclopentyl or cyclobutyl)-2-hydroxyacetic acids and their methyl, ethyl, n-propyl and iso-propyl esters,

and item 6 could, e.g., include:

3- or 4-hydroxypiperidine and their [derivatives] and [analogs].

7. N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethyl-2-chloride and corresponding quaternary ammonium compounds 1/ 2/
8. N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-ol and corresponding quaternary ammonium compounds 1/ 2/
9. N,N-Dialkyl (Me, Et, n-Pr or i-Pr) aminoethane-2-thiol and corresponding quaternary ammonium compounds 1/ 2/
10. Bis(2-hydroxyethyl)sulphide (thiodiglycol) 3/ (111-48-8)
- [11. 3,3-Dimethylbutan-2-ol (pinacolyl alcohol) 4/ (464-07-3)]

C. Schedule 2 part B

Amiton: O,O-Diethyl S-(2-(diethylamino)ethyl) phosphorothiolate (78-53-5)

[PFIB: 1,1,3,3,3 - pentafluoro -2- (trifluoromethyl) - 1 - propene 5/ (382-21-8)]

1/ It was suggested that a limitation of the group to contain only the N,N-diisopropyl compounds should be considered in view of the scale of the commercial production of other group members. These other group members could then be included in Schedule 3. In this context, a view was also expressed that it could be sufficient to have only the N,N-diisopropyl compounds in Schedule 2 part A from the viewpoint that they are key precursors to VX. Furthermore a view was expressed that unless an appropriate limitation of the group can be provided, the placement of this group on this schedule should be reconsidered in light of existing commercial production of substances included in the group.

2/ A view was expressed that "and corresponding quaternary ammonium compounds" should be replaced by "and corresponding salts".

3/ A view was expressed that this chemical should be included in Schedule 3.

4/ A view was expressed that this chemical should be included in Schedule 1.

5/ The view was expressed that further consideration is needed before PFIB can be added to Schedule 2 part B.

- D. Schedule 3 1/
1. Phosgene (75-44-5)
 2. Cyanogen chloride (506-77-4)
 3. Hydrogen cyanide (74-90-8)
 4. Trichloronitromethane (chloropicrin) (76-06-2)
 5. Phosphorus oxychloride (10025-87-3)
 6. Phosphorus trichloride (7719-12-2)
 7. Phosphorus pentachloride (10026-13-8)
 8. Di- and Trimethyl/Ethyl Esters of Phosphorus (P III)
Acid 2/
[e.g.]: Trimethyl phosphite (121-45-9)
Triethyl phosphite (122-52-1)
Dimethyl phosphite (868-85-9)
Diethyl phosphite (762-04-9)
 9. Sulphur monochloride (10025-67-9)
 10. Sulphur dichloride (10545-99-0)
 11. Thionyl chloride (7719-09-7)

1/ It was observed that no precursors for nitrogen mustards had been included and it was proposed that the three compounds triethanolamine, ethyldiethanolamine and methyldiethanolamine should be discussed in this context for possible inclusion in Schedule 3.

2/ Some felt that this heading might be superfluous and a possible source of misunderstandings, and therefore should be deleted.

III. GUIDELINES FOR SCHEDULES OF CHEMICALS

A. Guidelines for Schedule 1

The following criteria for a chemical shall be taken into account in considering whether a chemical should be included in Schedule 1:

1. (a) it has been developed, produced, stockpiled or used as a Chemical Weapon as defined in Article II;

or

(b) it poses otherwise a high risk to the objectives of the Convention by virtue of its high potential for use for activities prohibited by the Convention because one or more of the following conditions is met:

- it possesses a chemical structure closely related to that of other Toxic Chemicals listed in Schedule 1 and has, or can be expected to have, comparable properties;
- it possesses such lethal or incapacitating toxicity as well as other properties that might enable it to be weaponized and used as a Chemical Weapon;
- [it may be used as a precursor in the final technological stage of production of a Toxic Chemical listed in Schedule 1, regardless of whether this stage takes place in facilities, in munitions or elsewhere;]

[and]

2. it has little or no use for Purposes Not Prohibited Under The Convention.

B. Guidelines for Schedule 2 part A 1/

The following criteria shall be taken into account in considering whether a precursor to a Schedule 1 chemical would be included in Schedule 2 part A:

1. It may be used in one of the chemical reactions at the final stage of formation of a chemical listed in Schedule 1.

1/ These guidelines are in the process of further consideration and development.

2. It may pose a significant risk 1/ to the objectives of the Convention by virtue of its importance in the production of a chemical listed in Schedule 1.

[3. It is not produced in large commercial quantities for purposes not prohibited by the Convention. 2/]

C. Guidelines for Schedule 2 part B 3/

Super-toxic lethal chemicals and other chemicals which are not included in Schedule 1 and are not precursor chemicals but which are deemed to pose a significant risk to the objectives of the Convention. 4/ 5/

D. Guidelines for Schedule 3 3/

The following criteria shall be taken into account when considering whether a dual purpose chemical or a precursor chemical, not listed in other schedules, would be included in Schedule 3:

1/ The view was expressed that the degree of the risk of a chemical is determined on the basis of the contribution made by a precursor to the formation of the structure, or on the basis of the role it plays in determining the toxic properties of a Schedule 1 chemical.

2/ The question of the applicability of a quantitative criterion requires further discussion, taking into account, inter alia, the aim of the measures stipulated in Article VI, paragraph 6, as set forth in Annex 2 to Article VI, paragraph 4, the likelihood of meeting the various aspects of this aim by routine systematic on-site inspections and use of on-site instruments and the necessity of efficient implementation of verification.

3/ These guidelines are in the process of further consideration and development.

4/ A view was expressed that, when assessing the risk to the objectives of the Convention, factors such as the lethal or incapacitating effects of a chemical, as well as its suitability as a chemical weapon in terms of physical and chemical properties should be taken into account.

5/ A view was expressed that chemicals included in Schedule 2 part B may have commercial use.

A. Dual purpose chemical

1. It is produced in large commercial quantities 1/ for purposes not prohibited by the Convention, and
2. it has been stockpiled as a chemical weapon, or
3. it may pose a risk to the objectives of the Convention by virtue of its physical, chemical and toxicological properties being similar to those of chemical weapons.

B. Precursor chemical

1. It is produced in large commercial quantities 1/ for purposes not prohibited by the Convention, and
2. it may pose a risk to the objectives of the Convention by virtue of its importance in the production of one or more chemicals listed in Schedule 1, or in the production of precursors to such chemicals 2/ [, and
3. it contributes one or more atoms other than hydrogen, carbon, nitrogen or oxygen to the final listed end-product 3/].

1/ The question of a quantitative criterion, possibly including a numerical threshold, requires further discussion.

2/ A view was expressed that only precursors which may pose a risk to the objectives of the Convention by virtue of their importance in the production of one or more chemicals listed in Schedule 1 or 2 part A should be included.

3/ Whether this criterion is unduly restrictive should be further discussed.

IV. MODALITIES FOR REVISION OF SCHEDULES AND GUIDELINES 1/ 2/

A. General provisions

1. The revisions envisaged consist of additions to, deletions from, or shifts between the schedules and modifications of, additions to or deletions from the guidelines.
2. A revision shall be proposed by a State Party which may request the assistance of the Technical Secretariat in the preparation of its proposal. If the Director-General of the Technical Secretariat has [, or obtains from the Scientific Advisory Board,] any information which in his opinion may require a revision of the schedules of chemicals or one or more of the guidelines, he shall provide that information to the Executive Council and communicate it to all States Parties.
3. A proposal for revision shall be transmitted to the Director-General of the Technical Secretariat, substantiated with necessary information.
4. The Director-General of the Technical Secretariat shall inform the Executive Council and all States Parties about a proposal for a revision within [5] days of its receipt.
5. Any State Party and the Director-General of the Technical Secretariat may also provide relevant information for the evaluation of the proposal.

B. Decisions regarding revisions of schedules

1. When a proposal is made regarding a deletion of a chemical from a schedule or a shift between schedules the régime for that chemical shall be maintained while a decision on the proposed deletion or shift is being reached.
2. When an addition to a schedule of chemicals is proposed no régime shall be applied to that chemical until a decision has been taken to include it on one of the schedules.

1/ The view was expressed that there is no need to specify a role for the Scientific Advisory Board in these provisions as its functions will be determined by the Director-General in accordance with Article VIII. Another view was expressed that the Scientific Advisory Board should be able to submit to the Director-General or through him to the competent organs of the Organization any information available to it which in its opinion could lead to or contribute to a revision. These views apply to paras. A 2, B 4, C 1, C 3 of the present section.

2/ This Section requires further consideration in light of Article XIII.

[3. The proposal communicated under paragraph A.4 above shall be considered approved [if no State Party objects 1/ to it within [60] days after its receipt of the proposal.][upon the receipt within [60] days of formal acceptance by all States Parties.] 2/

4. [In the absence of such approval,] the Executive Council shall examine in light of all information available to it, [including any assessment by the Scientific Advisory Board,] the proposal for a revision. Within [90] days of the receipt of the proposal by the Director-General of the Technical Secretariat, the Executive Council shall provide its recommendation, together with appropriate background information, to all States Parties for consideration.

5. If the Executive Council recommends to all States Parties that the proposal be adopted, 3/ it shall be considered approved [[if no State Party objects][if no more than [5] States Parties object] 1/ to it within [30] days after its receipt of the recommendation.][upon the receipt within [30] days of formal acceptance by all States Parties.] 2/

6. Otherwise, a decision on the proposal shall be taken as a matter of substance by the Conference of the States Parties at its next regular session. For urgent consideration, a special session of the Conference of the States Parties may be convened according to Article VIII, paragraph B.(a).3.

7. Any decision shall be notified to all States Parties. An approved revision shall enter into force [60] days after such a notification.

C. Decisions regarding revision of guidelines

1. The Executive Council shall examine in light of all information available to it[, including any assessment by the Scientific Advisory Board,] the proposal for a revision. Within [90] days of the receipt of the proposal by the Director-General of the Technical Secretariat, the Executive Council shall provide its recommendation, together with appropriate background information, to all States Parties for consideration.

1/ A view was expressed that an objection to a revision should be substantiated.

2/ Views were expressed that this latter bracketed phrase does not accord with the concept of tacit approval.

3/ A view was expressed that the same procedure should apply also in case of a recommendation for rejection.

2. The decision on a proposal shall be taken by the Conference of the States Parties in accordance with the procedures [laid down in Article XIII.][to be specified in this Annex.]

[3. Following a revision of guidelines, the Director-General of the Technical Secretariat shall, [with the assistance of the Scientific Advisory Board,] immediately initiate a review of any schedule affected by the revision. This review shall be completed and the results communicated to all States Parties within [six] months.] 1/

1/ Further discussions are required as to whether a review would always be necessary and as to who would participate in the review process.

V. TOXICITY DETERMINATIONS

A. Procedures for toxicity determinations 1/ 2/

Recommended standardized operating procedures for
acute subcutaneous toxicity determinations

1. Introduction

Three categories of agents were defined on the basis of their toxicity:

- (i) super-toxic lethal chemicals;
- (ii) other lethal chemicals;
- (iii) other harmful chemicals.

Lethality limits in terms of LD₅₀ for subcutaneous administration were established to separate three toxic categories at 0.5 mg/kg and 10 mg/kg.

2. Principles of the test method

The test substance is administered to a group of animals in doses corresponding exactly to the category limits (0.5 or 10 mg/kg respectively). If in an actual test the death rate was greater than 50 per cent, then the material would fall into the higher toxicity category; if it was lower than 50 per cent the material would fall into the lower toxicity category.

3. Description of the test procedure

3.1 Experimental animal Healthy young adult male albino rats of Wistar strain weighing 200 ± 20 g should be used. The animals should be acclimatized to the laboratory conditions for at least five days prior to the test. The temperature of the animal room before and during the test should be $22 \pm 3^\circ$ C and the relative humidity should be 50-70 per cent. With artificial lighting, the sequence should be 12 hours light, 12 hours dark. Conventional laboratory diets may be used for feeding with an unlimited supply of drinking water. The animals should be group-caged but the number of animals per cage should not interfere with proper observation of each animal. Prior to the test, the animals are randomized and divided into groups; 20 animals in each group.

1/ It was understood that these recommended standardized operating procedures (CD/CW/WP.30) for toxicity determinations might be supplemented or modified and/or, if necessary, reviewed.

2/ A view was expressed that appropriate methods for testing of non-lethal harmful chemicals need to be addressed at a later stage.

3.2 Test substance Each test substance should be appropriately identified (chemical composition, origin, batch number, purity, solubility, stability, etc.) and stored under conditions ensuring its stability. The stability of the substance under the test conditions should also be known. A solution of the test substance should be prepared just before the test. Solutions with concentrations of 0.5 mg/ml and 10 mg/ml should be prepared. The preferable solvent is 0.85 per cent saline. Where the solubility of the test substance is a problem, a minimum amount of an organic solvent such as ethanol, propylene glycol or polyethylene glycol may be used to achieve solution.

3.3 Test method Twenty animals receive in the back region 1 ml/kg of the solution containing 0.5 mg/ml of the test substance. The number of dead animals is determined within 48 hours and again after 7 days. If the death rate is lower than 10 animals, another group of 20 animals should be injected by the same way with 1 ml/kg of the solution containing 10 mg/ml of the test substance. The number of dead animals should be determined within 48 hours and again after 7 days. If the result is doubtful (e.g. death rate = 10), the test should be repeated.

3.4 Evaluation of the results If the death rate in the first group of animals (receiving a solution containing 0.5 mg/ml) is equal to or higher than 50 per cent, the test substance will fall into the "super-toxic lethal chemical" category. If the death rate in the second group (receiving a solution containing 10 mg/ml) is equal to or higher than 50 per cent, the test substance will fall into the "other lethal chemical" category; if lower than 50 per cent, the test substance will fall into the "other harmful chemical".

4. Data reporting

A test report should include the following information:

- (i) test conditions: date and hour of the test, air temperature and humidity;
- (ii) animal data: strain, weight and origin of the animals;
- (iii) test substance characterization: chemical composition, origin, batch number and purity (or impurities) of the substance; date of receipt, quantities received and used in the test; conditions of storage, solvent used in the test;
- (iv) results: the number of dead animals in each group, evaluation of results.

Recommended standardized operating procedures for
acute inhalation toxicity criteria

1. In the assessment and evaluation of the toxic characteristics of chemicals in a vapour or aerosol state determination of acute inhalation toxicity is necessary. In every case, when it is possible, this test should be preceded by subcutaneous toxicity determination. Data from these studies constitute the initial steps in the establishing of a dosage regimen in subchronic and other studies and may provide additional information on the mode of toxic action of a substance.

Three categories of agents were defined on the basis of their toxicity:

- (i) super-toxic lethal chemicals;
- (ii) other lethal chemicals;
- (iii) other harmful chemicals.

Lethality limits in terms of LCT_{50} for inhalatory application were established to separate three toxic categories at $2,000 \text{ mg min/m}^3$ and $20,000 \text{ mg min/m}^3$.

2. Principles of the test method

A group of animals is exposed for a defined period to the test substance in concentration corresponding exactly to the category limits ($2,000 \text{ mg min/m}^3$ or $20,000 \text{ mg min/m}^3$ respectively). If in an actual test the death rate was greater than 50 per cent, then the material would fall into the higher toxicity category; if it was lower than 50 per cent, the material would fall into the lower toxicity category.

3. Description of the test procedure

3.1 Experimental animal Healthy young adult male albino rats of Wistar strain weighing $200 \pm 20 \text{ g}$ should be used. The animals should be acclimatized to the laboratory conditions for at least five days prior to the test. The temperature of the animal room before and during the test should be $22 \pm 3^\circ \text{ C}$ and the relative humidity should be 50-70 per cent. With artificial lighting, the sequence should be 12 hours light, 12 hours dark. Conventional laboratory diets may be used for feeding with an unlimited supply of drinking water. The animals should be group-caged but the number of animals per cage should not interfere with proper observation of each animal. Prior to the test the animals are randomized and divided into two groups; 20 animals in each group.

3.2 Test substance Each test substance should be appropriately identified (chemical composition, origin, batch number, purity, solubility,

stability, boiling point, flash point, vapour pressure, etc.) and stored under conditions ensuring its stability. The stability of the substance under the test conditions should also be known.

3.3. Equipment A constant vapour concentration may be produced by one of several methods:

- (i) by means of an automatic syringe which drops the material on to a suitable heating system (e.g. hot plate);
- (ii) by sending airsteam through a solution containing the material (e.g. bubbling chamber);
- (iii) by diffusion of the agent through a suitable material (e.g. diffusion chamber).

A dynamic inhalation system with a suitable analytical concentration control system should be used. The rate of air flow should be adjusted to ensure that conditions throughout the equipment are essentially the same. Both a whole body individual chamber exposure or head only exposure may be used.

3.4 Physical measurements Measurements or monitoring should be conducted of the following parameters:

- (i) the rate of air flow (preferably continuously);
- (ii) the actual concentration of the test substance during the exposed period;
- (iii) temperature and humidity.

3.5 Test method Twenty animals are exposed for 10 minutes to the concentration of 200 mg/m^3 and then removed from the chamber. The number of dead animals is determined within 48 hours and again after 7 days. If the death rate is lower than 10 animals, another group of 20 animals should be exposed for 10 minutes to the concentration of $2,000 \text{ mg/m}^3$. The number of dead animals should be determined within 48 hours and again after 7 days. If the result is doubtful (e.g. death rate = 10), the test should be repeated.

3.6 Evaluation of results If the death rate in the first group of animals (exposed to the concentration of 200 mg/m^3) is equal to or higher than 50 per cent, the test substance will fall into the "super-toxic lethal chemical" category. If the death rate in the second group (exposed to the concentration of $2,000 \text{ mg/m}^3$) is equal to or higher than 50 per cent, the test substance will fall into the "other lethal chemical" category; if it is lower than 50 per cent, the test substance will fall into the "other harmful chemical".

4. Data reporting

A test report should include the following information:

- (i) Test conditions: date and hour of the test, description of exposure chamber (type, dimensions, source of air, system for generating the test substance, method of conditioning air, treatment of exhaust air, etc.) and equipment for measuring temperature, humidity, air flow and concentration of the test substance;
- (ii) Exposure data: air flow rate, temperature and humidity of air, nominal concentration (total amount of test substance fed into the equipment divided by volume of air), actual concentration in test breathing zone;
- (iii) Animal data: strain, weight and origin of animals;
- (iv) Test substance characterization: chemical composition, origin, batch number and purity (or impurities) of the substance; boiling point, flash point, vapour pressure; date of receipt, quantities received and used in the test; condition of storage, solvent used in the test;
- (v) Results: number of dead animals in each group, evaluation of results.

B. Modalities for revision of toxicity determination procedures

(To be developed)

ANNEX ON THE PROTECTION OF CONFIDENTIAL INFORMATION 1/ 2/

A. GENERAL PRINCIPLES FOR THE HANDLING OF CONFIDENTIAL INFORMATION

1. The obligation to protect confidential information shall pertain to the verification of both civil and military activities and facilities. As specified in Article VIII, the Organization shall:

(a) require only the minimum amount of information and data necessary for the timely and efficient carrying out of its responsibilities under the Convention;

(b) take measures necessary to ensure that inspectors and other staff members of the Technical Secretariat meet the highest standards of efficiency, competence, and integrity;

(c) develop agreements and regulations to implement the provisions of the Convention and shall specify as precisely as possible the information to which the Organization shall be given access by a State Party.

2. The Director-General of the Technical Secretariat shall have the primary responsibility for ensuring the protection of confidential information. He shall establish a stringent régime governing the handling of confidential information by the Technical Secretariat. [The Director-General shall be assisted by an Assistant Director-General for Information Security.] In doing so he shall observe the following guidelines:

(a) Information shall be considered confidential if

(i) it is so designated by the State Party from whom the information was obtained and to which the information refers; or

(ii) in the judgement of the Director-General, its unauthorized disclosure could reasonably be expected to cause damage to the State Party to which it refers or to the mechanisms for implementation of the Convention.

(b) All data and documents obtained by the Technical Secretariat shall be evaluated by the appropriate unit of the Technical Secretariat in order to

1/ A view was expressed that further discussion on this subject is necessary.

2/ The view was expressed that the references to confidentiality in Article VII and Article VIII are adequate. The detailed guidelines on confidentiality should be part of rules and regulations to be developed by the International Organization.

establish whether they contain confidential information. Data required by States Parties to be assured of the continued compliance with the Convention by other States Parties shall be routinely provided to them. Such data shall encompass:

- (i) the initial and annual reports and declarations provided by States Parties under Articles III, IV, V and VI;
- (ii) general reports on the results and effectiveness of verification activities; and
- (iii) information to be supplied to all States Parties in accordance with the provisions of the Convention.

(c) No information obtained by the Organization in connection with implementation of the Convention shall be published or otherwise released, except, as follows:

- (i) General information on the implementation of the Convention may be compiled and released publicly in accordance with the decisions of the Conference of the States Parties or the Executive Council. [Prior to public release, all data and documents shall be evaluated by a specially designated unit of the Technical Secretariat to ensure that they do not contain confidential information.]
- (ii) Any information may be released with the express consent of the State Party to which the information refers.
- (iii) Information classified as confidential shall be released by the Organization only through agreed procedures which ensure that the release of information only occurs in strict conformity with the needs of the Convention.

(d) The level of sensitivity of confidential data or documents shall be established, based on criteria to be applied uniformly ^{1/} in order to ensure their appropriate handling and protection. For this purpose, a classification system shall be introduced, which by taking account of relevant work undertaken in the preparation of the Convention shall provide for clear criteria ensuring the inclusion of information into appropriate categories of confidentiality and the justified durability of the confidential nature of information. While providing for the necessary flexibility in its implementation the classification system shall protect the rights of States Parties providing confidential information.

^{1/} The view was expressed that such criteria should be developed by the Technical Secretariat.

(e) Confidential information shall be stored securely at the premises of the Organization. Some data or documents may also be stored with the national authority of a State Party. Sensitive information, inter alia, photographs, plans and other documents required only for the inspection of a specific facility may be kept under lock and key at this facility in conformity with the agreement to be concluded on the basis of a relevant model.

(f) To the greatest extent consistent with the effective implementation of the verification provisions of the Convention, information shall be handled and stored by the Technical Secretariat in a form that precludes direct identification of the facility to which it pertains.

(g) The amount of confidential information removed from a facility shall be kept to the minimum necessary for the timely and effective implementation of the verification provisions of the Convention.

[(h) Each employee shall only have access to that kind of information necessary for fulfilment of the function deriving from the relevant position description.]

(i) Access to confidential information shall be regulated in accordance with its classification. The dissemination of confidential information within the Organization shall be on a strictly need-to-know basis.

(j) The Director-General shall report annually to the Conference of the States Parties on the implementation of this régime.

3. States Parties shall treat information which they receive from the Organization in accordance with the level of confidentiality established for that information. [Upon request States Parties shall provide details on the handling of information provided to them by the Organization.]

B. EMPLOYMENT AND CONDUCT OF PERSONNEL IN THE TECHNICAL SECRETARIAT

1. Conditions of staff employment shall be such as to ensure that access to and handling of confidential information shall be in conformity with the procedures established by the Director-General in accordance with part A of this Annex.

2. [Each position in the Technical Secretariat shall be governed by a formal position description that specifies the scope of access to confidential information, if any, needed in that position.]

3. In keeping with the provisions of Article VIII D of this Convention, the Director-General of the Technical Secretariat, the inspectors and other members of the staff shall not disclose even after termination of their functions to any unauthorized persons any confidential information coming to their knowledge in the performance of their official duties. They shall not

communicate to any State, organization or person outside the Technical Secretariat any information to which they have access in connection with their activities in a State Party.

4. In the discharge of their function inspectors shall only request the information and data which are necessary to fulfil their mandate. They shall not take any records on information collected incidentally not related to verification of compliance with the Convention.

5. The staff shall enter into individual secrecy agreements ^{1/} [with the Technical Secretariat] covering their period of employment and a period of five years after it is terminated.

6. In order to avoid improper disclosures, inspectors and staff members shall be appropriately advised and reminded about security considerations [and of the possible penalties that they would incur, including the likelihood of the Organization's waiving their immunity from private suit].

[7. Not less than 30 days before an employee is given clearance for access to confidential information that refers to activities under the [jurisdiction or control] of a State Party, the State Party concerned shall be notified of the proposed clearance. For inspectors the notification of a proposed designation shall fulfil this requirement.

8. In evaluating the performance of inspectors and other employees of the Technical Secretariat, specific attention should be given to the employee's record regarding protection of confidential information.]

C. MEASURES TO PROTECT SENSITIVE INSTALLATIONS AND PREVENT DISCLOSURE OF CONFIDENTIAL DATA IN THE COURSE OF ON-SITE VERIFICATION ACTIVITIES ^{2/}

1. States Parties may take such measures as they deem necessary to protect confidentiality, provided that they comply and demonstrate compliance with their obligations arising from the provisions of this Convention. Receiving an inspection they may indicate to the inspection team the equipment, documentation or areas that they consider sensitive and not related to the purpose of the inspection.

2. Teams shall be guided by the principle of conducting on-site inspections in the least intrusive manner possible, consistent with the effective and

^{1/} This issue requires further consideration.

^{2/} The contents and placement of some provisions contained in this section need to be reviewed in the light of ongoing discussions on the Guidelines on the Inspectorate.

timely accomplishment of their mission. They shall, to the extent they deem them appropriate, take into consideration and adopt proposals which may be made by the State Party receiving the inspection, at whatever stage of the inspection, to ensure that sensitive equipment or information, not related to chemical weapons, is protected.

3. Inspection teams shall strictly abide by the provisions set out in the relevant Articles and Annexes of this Convention governing the conduct of inspections. They shall fully respect the procedures designed to protect sensitive installations and to prevent the disclosure of confidential data.

4. In the elaboration of subsidiary arrangements/facility attachments due regard shall be paid to the requirement of protecting confidential information. Agreements on inspection procedures for individual facilities shall also include specific and detailed arrangements with regard to the determination of those areas of the facility to which inspectors are granted access, the storage of confidential information on-site, the scope of the inspection effort in agreed areas, the taking of samples and their analysis, the access to records and the use of instruments and continuous monitoring equipment.

5. The report to be prepared after each inspection shall only contain facts relevant to compliance with the Convention. The report shall be handled in accordance with the regulations established by the Organization governing the handling of confidential information. If necessary, the information contained in the report shall be processed into less sensitive forms before it is transmitted outside the Technical Secretariat and the inspected State Party.

D. PROCEDURES IN CASE OF BREACHES OR ALLEGED
BREACHES OF CONFIDENTIALITY ^{1/}

1. The Director-General of the Technical Secretariat shall establish necessary procedures to be followed in case of breaches or alleged breaches of confidentiality, taking into account recommendations made by the Preparatory Commission.

2. The Director-General of the Technical Secretariat shall oversee the implementation of individual secrecy agreements and promptly initiate an investigation if there is any indication that obligations concerning the protection of confidential information have been violated and if he considers such an indication sufficient. He shall also promptly initiate an investigation if an allegation concerning a breach of confidentiality is made by a State Party.

^{1/} This section should be reviewed in the light of the results of considerations of other legal issues, in particular liability and the settlement of disputes.

3. [Members of the staff of the Technical Secretariat shall be held responsible for any breach of secrecy agreements they entered into.] The Director-General shall impose appropriate punitive and disciplinary measures on staff members who have violated their obligations to protect confidential information. ^{1/} In case of serious breaches the immunity from legal process may be waived by the Director-General.

4. States Parties shall, to the extent possible, co-operate and support the Director-General of the Technical Secretariat in investigating any breach or alleged breach of confidentiality and in taking appropriate action in case a breach has been established.

5. The Organization shall not be held liable for any breach of confidentiality committed by members of the Technical Secretariat.

6. For breaches involving both a State Party and the Organization [or specifically within the Technical Secretariat] a "Commission for the settlement of disputes related to confidentiality", set up as a subsidiary ad hoc body of the Conference of the States Parties, shall consider the case. This Commission shall be appointed by the Conference of the States Parties.

^{1/} A view was expressed that the Director-General should be given clear guidelines on which punitive and disciplinary measures would be deemed appropriate.

ANNEX TO ARTICLE III

I. DECLARATIONS OF CHEMICAL WEAPONS

A. Possession or non-possession

1. Possession of chemical weapons on own territory

Yes ...

No ...

2. Possession, jurisdiction or control over chemical weapons elsewhere

Yes ...

No ...

B. Existence on the territory of any chemical weapons under the jurisdiction or control of anyone else

Yes ...

No ...

C. Past transfers

Yes ...

No ...

II. DECLARATIONS OF CHEMICAL WEAPONS PRODUCTION FACILITIES

A. Possession or non-possession

1. Possession of chemical weapons production facilities on own territory

Yes ...

No ...

2. Possession, jurisdiction or control over chemical weapons production facilities elsewhere

Yes ...

No ...

B. Existence on the territory of any chemical weapons production facilities under the jurisdiction or control of anyone else

Yes ...

No ...

C. Past transfers of equipment [or technical documentation] ^{1/}

Yes ...

No ...

[III. OTHER DECLARATIONS]

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^{1/} The view was expressed that technical documentation should not be included.

ANNEX TO ARTICLE IV

I. DECLARATIONS OF CHEMICAL WEAPONS

A. The declaration by a State Party of the aggregate quantity, location, and detailed composition of chemical weapons under its jurisdiction or control shall include the following:

1. The aggregate quantity of each chemical declared.
2. The precise location of each declared storage site of chemical weapons, expressed by:
 - name;
 - geographical co-ordinates.
3. Detailed inventory for each storage facility:
 - (1) Chemicals defined as chemical weapons in accordance with Article II:
 - (a) Chemicals shall be declared within the Schedules specified in the Annex on Chemicals.
 - (b) For a chemical not listed in the Schedules in the Annex on Chemicals the information required for possible assignment of the chemical to one of the proper Schedules shall be provided, including the toxicity of the pure compound. For a precursor chemical, the toxicity and identity of the principal final reaction product(s) shall be provided.
 - (c) Chemicals shall be identified by chemical name in accordance with current IUPAC (International Union of Pure and Applied Chemistry) nomenclature, structural formula and Chemical Abstracts Service registry number, if assigned. For a precursor chemical, the toxicity and identity of the principal final reaction product(s) shall be provided.
 - (d) In cases involving mixtures of two or more chemicals, each chemical shall be identified and the percentage of each shall be provided, and the mixture shall be declared under the category of the most toxic chemical. If a component of a binary chemical weapon consists of a mixture of two or more chemicals, each chemical shall be identified and the percentage of each provided.

(e) Provisions related to binary chemical weapons

1. Binary chemical weapons shall be declared under the relevant end product within the framework of the agreed categories of chemical weapons. The following supplementary information shall be provided for each type of binary chemical munition/device ^{1/}

- a. the chemical name of the toxic end product;
- b. the chemical composition and quantity of each component;
- c. the actual weight ratio between the components;
- d. which component shall be considered the [limiting] [key] component;
- e. the projected quantity of the toxic end product calculated on a stoichiometric basis from the [limiting] [key] component, assuming 100 per cent yield.

2. A declared quantity (in tonnes) of the [limiting] [key] component intended for a specific toxic end product shall be considered equivalent to the quantity (in tonnes) of this toxic end product calculated on a stoichiometric basis assuming 100 per cent yield.

(f) For multicomponent chemical weapons, the declaration shall be analogous to that envisaged for binary chemical weapons.

(g) For each chemical the form of storage, i.e. munitions, sub-munitions, devices, equipment or bulk containers and other containers shall be declared. For each form of storage the following shall be listed:

- type
- size or calibre
- number of items
- weight of chemical fill per item.

In addition, for chemicals stored in bulk, the percentage purity shall be declared.

(h) For each chemical the total weight present at the storage site shall be declared.

^{1/} Issues related to relevant chemicals stored in bulk are subject to further discussion.

(2) Unfilled munitions and/or sub-munitions and/or devices and/or equipment, defined as chemical weapons. For each type the information shall include:

- (a) the number of items
- (b) the fill volume per item
- (c) the intended chemical fill, if known.

(3) Equipment specifically designed for use directly in connection with the employment of munitions, sub-munitions, devices or equipment under points (1) and (2).

(4) Chemicals specifically designed for use directly in connection with the employment of munitions, sub-munitions, devices or equipment under points (1) and (2).

B. Detailed information on any chemical weapons on the territory of a State Party which are under the jurisdiction or control of others, including a State not Party to the Convention (to be developed).

C. Past transfers and receipts.

A State Party that has transferred or received chemical weapons since 1 January 1946 shall declare these transfers or receipts, provided the amount transferred or received exceeded [1 tonne [of chemicals] [per chemical]] [100 kg per chemical] per year in bulk and/or munition form. This declaration shall be made according to the inventory format in paragraph 3 above. This declaration shall also indicate the supplier and recipient countries, the timing of the transfers or receipts and, as precisely as possible, the current location of the transferred items. When not all the specified data are available for transfers or receipts of chemical weapons for the period between 1 January 1946 and [1 January 1970] [20] [10] years before the entry into force of the Convention], the State Party shall declare whatever information is still available to it and provide an explanation as to why it cannot submit a full declaration.

II. INTERNATIONAL VERIFICATION OF DECLARATIONS OF CHEMICAL WEAPONS, INTERNATIONAL SYSTEMATIC MONITORING OF STORAGE FACILITIES, INTERNATIONAL VERIFICATION OF REMOVAL OF CHEMICAL WEAPONS FOR DESTRUCTION

1. Storage facility description

(a) Each site or location where, pending their destruction, chemical weapons declared in accordance with Article IV, are stored on the territory of a State Party or under its jurisdiction or control elsewhere, shall hereafter be designated as "storage facility".

(b) At the time of the submission of its declaration of chemical weapons, in accordance with Article IV, a State Party shall provide the Technical Secretariat with the detailed description and location of its storage facility(ies) containing:

- boundary map;
- location of bunkers/storage areas, within the facility;
- the detailed inventory of the contents of each bunker/storage area;
- relevant details of the construction of bunkers/storage areas;
- recommendations for the emplacement by the Technical Secretariat of seals and monitoring instruments.

2. Measures to secure the storage facility and storage facility preparation

(a) Not later than when submitting its declaration of chemical weapons, a State Party shall take such measures as it considers appropriate to secure its storage facility(ies) and shall prevent any movement of its chemical weapons, except their removal for destruction.

(b) In order to prepare its storage facility(ies) for international verification, a State Party shall ensure that its chemical weapons at its storage facility(ies) are so configured that seals and monitoring devices may be effectively applied, and that such configuration allows ready access for such verification.

(c) While the storage facility remains closed for any movement of chemical weapons other than their removal for destruction activities necessary for maintenance and safety monitoring by national authorities, including standard maintenance of chemical weapons, may continue at the facility.

- Maintenance activities of chemical weapons shall not include:
 - (a) replacement of agent or of munition bodies;
 - (b) modification of the original characteristics of munitions, or parts or components thereof.
- All maintenance activities shall be subject to monitoring by the Technical Secretariat.

3. Agreements on subsidiary arrangements 1/

(a) Within [6] months after entry into force of the Convention, States Parties shall conclude with the Organization agreements on subsidiary arrangements for verification of their storage facilities. Such agreements shall be based on a Model Agreement and shall specify for each storage facility the number, intensity, duration of inspections, detailed inspection procedures and the installation, operation and maintenance of the seals and monitoring devices by the Technical Secretariat. The Model Agreement shall include provisions to take into account future technological developments.

(b) States Parties shall ensure that the verification of declarations of chemical weapons and the initiation of the systematic monitoring of storage facilities can be accomplished by the Technical Secretariat at all storage facilities within the agreed time frames after the Convention enters into force. 2/

4. International verification of declarations of chemical weapons

(a) International verification by on-site inspections

(i) The purpose of the international verification of declarations of chemical weapons shall be to confirm through on-site inspections the accuracy of the declarations made in accordance with Article IV. 3/

(ii) The Inspectors shall conduct this verification promptly after a declaration is submitted. They shall, inter alia, verify the quantity and identity of chemicals, types and number of munitions, devices and other equipment.

(iii) They shall employ, as appropriate, agreed seals, markers or other inventory control procedures to facilitate an accurate inventory of the chemical weapons at each storage facility.

(iv) As the inventory progresses, Inspectors shall install such agreed seals as may be necessary to clearly indicate if any stocks are removed, and to ensure the securing of the storage facility.

1/ The coverage of the subsidiary arrangements is to be discussed.

2/ Procedures to ensure the implementation of the verification scheme within designated time frames are to be developed.

3/ The applicability of Article IV, paragraph 2(b) is to be discussed.

(b) Co-ordination for international systematic monitoring of storage facilities

In conjunction with the on-site inspections of verification of declarations of chemical weapons, the Inspectors shall undertake necessary co-ordination for measures of systematic monitoring of storage facilities.

5. Systematic monitoring of storage facilities

(a) The purpose of the international systematic monitoring of storage facilities shall be to ensure that no undetected removal of chemical weapons takes place.

(b) The international systematic monitoring shall be initiated as soon as possible after the declaration of chemical weapons is submitted and shall continue until all chemical weapons have been removed from the storage facility. It shall be ensured, in accordance with the agreement on subsidiary arrangements, through a combination of continuous monitoring with on-site instruments and systematic verification by international on-site inspections or, where the continuous monitoring with on-site instruments is not feasible, by the presence of Inspectors.

(c) If the relevant agreement on subsidiary arrangements for the systematic monitoring of a chemical weapons storage facility is concluded, Inspectors shall install for the purpose of this systematic monitoring a monitoring system as referred to below under (e). If no such agreement has been concluded, the Inspectors will initiate the systematic monitoring by their continuous presence on-site until the agreement is concluded, and the monitoring system installed and activated.

(d) In the period before the activation of the continuous monitoring with on-site instruments and at other times when this continuous monitoring is not feasible, seals installed by Inspectors may only be opened in the presence of an Inspector. If an extraordinary event requires the opening of a seal when an Inspector is not present, a State Party shall immediately inform the Technical Secretariat and Inspectors will return as soon as possible to validate the inventory and re-establish the seals.

(e) Monitoring with instruments.

(i) For the purpose of the systematic monitoring of a chemical weapons storage facility, Inspectors will install, in the presence of host country personnel and in conformity with the relevant agreement on subsidiary arrangements, a monitoring system consisting of, inter alia, sensors, ancillary equipment and transmission systems. The agreed types of these instruments shall be specified in the Model Agreement. They shall incorporate, inter alia, seals and other tamper-indicating and tamper-resistant devices as well as data protection and data authentication features.

- (ii) The monitoring system shall have such abilities and be installed, adjusted or directed in such a way as to correspond strictly and efficiently to the sole purpose of detecting prohibited or unauthorized activities within the chemical weapons storage facility as referred to above under (a). The coverage of the monitoring system shall be limited accordingly. The monitoring system will signal the Technical Secretariat if any tampering with its components or interference with its functioning occurs. Redundancy shall be built into the monitoring system to ensure that failure of an individual component will not jeopardize the monitoring capability of the system.
 - (iii) When the monitoring system is activated, Inspectors will verify the accuracy of the inventory of chemical weapons, as required.
 - (iv) Data will be transmitted from each storage facility to the Technical Secretariat by means (to be determined). The transmission system will incorporate frequent transmissions from the storage facility and a query and response system between the storage facility and the Technical Secretariat. Inspectors shall periodically check the proper functioning of the monitoring system.
 - (v) In the event that the monitoring system indicated any irregularity, the Inspectors would immediately determine whether this resulted from equipment malfunction or activities at the storage facility. If, after this examination the problem remained unresolved, the Technical Secretariat would immediately ascertain the actual situation, including through immediate on-site inspection or visit of the storage facility if necessary. The Technical Secretariat shall report any such problem immediately after its detection to the State Party who should assist in its resolution.
 - (vi) The State Party shall immediately notify the Technical Secretariat if an event at the storage facility occurs, or may occur, which may have an impact on the monitoring system. The State Party shall co-ordinate subsequent actions with the Technical Secretariat with a view to restoring the operation of the monitoring system, and establishing interim measures, if necessary, as soon as possible.
- (f) Systematic on-site inspections and visits.
- (i) Visits to service the monitoring system may be required in addition to systematic on-site inspections to perform any necessary maintenance, replacement of equipment or to adjust the coverage of the monitoring system, if required.

(ii) (The guidelines for determining the frequency of systematic on-site inspections are to be elaborated.) The particular storage facility to be inspected shall be chosen by the Technical Secretariat in such a way as to preclude the prediction of precisely when the facility is to be inspected. During each inspection, the Inspectors will verify that the monitoring system is functioning correctly and verify the inventory in agreed percentage of bunkers and storage areas.

(g) When all chemical weapons have been removed from the storage facility, the Technical Secretariat shall certify the declaration of the National Authority to that effect. After this certification, the Technical Secretariat shall terminate the international systematic monitoring of the storage facility and will promptly remove all devices and monitoring equipment installed by the Inspectors.

6. International verification of the removal of chemical weapons for destruction

(a) The State Party shall notify the Technical Secretariat [14] days in advance of the exact timing of removal of chemical weapons from the storage facility and of the planned arrival at the facility where they will be destroyed.

(b) The State Party shall provide the Inspectors with the detailed inventory of the chemical weapons to be moved. The Inspectors shall be present when chemical weapons are removed from the storage facility and shall verify that the chemical weapons on the inventory are loaded on to the transport vehicles. Upon completion of the loading operations, the Inspectors shall seal the cargo and/or means of transport, as appropriate.

(c) If only a portion of the chemical weapons is removed, the Inspectors will verify the accuracy of the inventory of the remaining chemical weapons and make any appropriate adjustments in the monitoring system in accordance with the agreement on subsidiary arrangements.

(d) The Inspectors shall verify the arrival of the chemical weapons at the destruction facility by checking the seals on the cargo and/or the means of transport and shall verify the accuracy of the inventory of the chemical weapons transported.

7. Inspections and visits

(a) The (Director-General of the) Technical Secretariat shall notify the State Party of its decision to inspect or visit the storage facility 48 hours prior to the planned arrival of the inspection team at the facility for systematic inspections or visits. In the event of inspections or visits to resolve urgent problems, this period may be shortened. The (Director-General of the) Technical Secretariat shall specify the purpose(s) of the inspection or visit.

(b) A State Party shall make any necessary preparations for the arrival of the Inspectors and shall ensure their expeditious transportation from their point of entry on the territory of the State Party to the storage facility. The agreement on subsidiary arrangements will specify administrative arrangements for Inspectors.

(c) Inspectors shall, in accordance with agreements on subsidiary arrangements:

- have unimpeded access to all parts of the storage facilities including any munitions, devices, bulk containers, or other containers therein. While conducting their activity, Inspectors shall comply with the safety regulations at the facility. The items to be inspected will be chosen by the Inspectors;
- bring with them and use such agreed instruments as may be necessary for the completion of their tasks;
- receive samples taken at their request from any devices and bulk containers and other containers at the facility. Such samples will be taken by representatives of the State Party in the presence of the Inspectors;
- perform on-site analysis of samples;
- transfer, if necessary, samples for analysis off-site at a laboratory designated by the Organization, ^{1/} in accordance with agreed procedures
- afford the opportunity to the inspected State Party to be present when samples are analysed;
- ensure, in accordance with agreed procedures that samples transported, stored and processed are not tampered with;
- communicate freely with the Technical Secretariat.

(d) The State Party receiving the inspection shall, in accordance with agreed procedures:

- have the right to accompany the Inspectors at all times during the inspection and observe all their verification activities at the storage facility;
- have the right to retain duplicates of all samples taken and be present when samples are analysed;

^{1/} The designation of the organ of the Organization that will be entrusted with this task will be considered further and specified in the text.

- have the right to inspect any instrument used or installed by the Inspectors and to have it tested in the presence of its personnel;
- provide assistance to the Inspectors, upon their request, for the installation of the monitoring system and the analysis of samples on-site;
- receive copies of the reports on inspections of its storage facility(ies);
- receive copies, at its request, of the information and data gathered about its storage facility(ies) by the Technical Secretariat.

(e) The Inspectors may request clarification of any ambiguities arising from the inspection. In the event that any ambiguities arise which cannot be resolved in the course of the inspection, the Inspectors shall inform the (Director-General of the) Technical Secretariat.

(f) After each inspection or visit to the storage facility, Inspectors shall submit a report with their findings to the (Director-General of the) Technical Secretariat which will transmit a copy of this report to the State Party having received the inspection or visit.

III. DESTRUCTION OF CHEMICAL WEAPONS

1. Destruction of chemical weapons means a process by which chemicals are converted in an essentially irreversible way to a form unsuitable for production of chemical weapons, and which in an irreversible manner renders munitions and other devices unusable as such. 1/ 2/

2. Each State Party possessing chemical weapons shall determine how it shall destroy them, except that the following processes may not be used: dumping in any body of water, land burial or open-pit burning. It shall destroy chemical weapons only at specifically designated and appropriately designed and equipped facility(ies).

1/ It was noted that States Parties could take preliminary steps to render chemical weapons inoperable pending their complete destruction. It was also noted that if, unforeseeably, a State Party for strictly technical reasons could not fulfill its obligations with respect to the Order of Destruction, the Executive Council shall request it to take appropriate measures pending complete destruction.

2/ It was also noted that these measures, if employed, should be temporary and should not interfere with destruction programmes in progress or planned.

3. The State Party shall ensure that its chemical weapons destruction facility(ies) are constructed and operated in a manner to ensure the destruction of the chemical weapons; and that the destruction process can be verified under the provisions of this Convention.

A. GUIDELINES

1. The order of destruction of chemical weapons is based on the obligations specified in Article I and the other Articles of the Convention, including obligations regarding systematic international on-site verification: it takes into account interests of States Parties for undiminished security during the destruction period; confidence-building in the early part of the destruction stage; gradual acquisition of experience in the course of destroying chemical weapons and applicability irrespective of the actual composition of the stockpiles and the methods chosen for the destruction of the chemical weapons. The order of destruction is based on the principle of levelling out.

[2. The destruction of chemical weapons stocks shall start for all States Parties possessing chemical weapons simultaneously. The whole destruction stage shall be divided into nine annual periods.

3. Each State Party shall destroy not less than one-ninth of its stockpile [in measure of stockpile equivalent and/or equivalent mustard weight] during each destruction period. However, a State Party is not precluded from destroying its stocks at a faster pace. Each State Party shall determine its detailed plans for each destruction period, as specified in part III of this Annex and shall report annually on the implementation of each destruction period.] 1/

B. ORDER OF DESTRUCTION 2/

1. For the purpose of destruction, chemical weapons declared by each State Party are divided into three categories:

Category 1: Chemical weapons on the basis of Schedule 1 chemicals and their parts and components;

Category 2: Chemical weapons on the basis of all other chemicals and their parts and components;

Category 3: Unfilled munitions and devices, and equipment specifically designed for use directly in connection with employment of chemical weapons.

1/ It is understood that this section will be deleted when agreement is reached on the order of destruction as described in Section B.

2/ A view was expressed that the question of qualitative aspects of the order of destruction should also be addressed.

2. Each State Party possessing chemical weapons

- shall start the destruction of Category 1 chemical weapons not later than one year from the date the Convention enters into force for it, and shall complete the destruction not later than ten years after the entry into force of the Convention. ^{1/} Taking into account the principle of levelling out, Category 1 chemical weapons shall be destroyed, in equal annual increments, from the beginning of the destruction process until the end of the eighth year after the Convention enters into force; the maximum quantity remaining at the end of the eighth year after the entry into force of the Convention shall not exceed 500 tonnes or 20 per cent of the quantity of chemical weapons declared by the State Party at the entry into force for it, whichever is less. The remaining quantity of Category 1 chemical weapons shall be destroyed in equal annual increments in the following two years. The comparison factor is chemical weapon agent tonnes.

- shall start the destruction of Category 2 chemical weapons not later than one year from the date the Convention enters into force for it and shall complete the destruction not later than five years after the entry into force of the Convention; Category 2 chemical weapons shall be destroyed in equal annual increments throughout the destruction period; the comparison factor for such weapons is the weight of the chemicals within such Category.

^{1/} Some delegations noted the need to provide for universality of the Convention in connection with the concern that, in light of national security interests, if States Parties are to fully destroy their chemical weapons, they must make sure that other States would not still pose a chemical weapons threat. In this regard, document CD/CW/WP.303, which is contained in the "Other Documents" Section of Appendix II, proposes that a Special Conference be held at the end of the eighth year after the entry into force of the Convention pursuant to Article VIII, to consider the question of the participation in the Convention at that time, and to take a decision as to whether the participation in the Convention is sufficient for proceeding to the total elimination of all remaining chemical weapon stocks over the subsequent two years.

The Group of 21 has objected to the proposals contained in document CD/CW/WP.303. The Group of 21 considers that universal adherence to the Convention cannot be achieved through partial destruction of chemical weapons. This view is contained in the statement of the Group of 21 at the 567th plenary meeting of the Conference on Disarmament on 24 July 1990 which can be found in the "Other Documents" Section of Appendix II.

- shall start the destruction of Category 3 chemical weapons not later than one year from the date the Convention enters into force for it, and shall complete the destruction not later than five years after the entry into force of the Convention; Category 3 chemical weapons shall be destroyed in equal annual increments throughout the destruction period; the comparison factor for unfilled munitions and devices is expressed in fill volume (m³) and for equipment in number of items.

C. BINARY CHEMICAL WEAPONS

1. For the purposes of the order of destruction, a declared quantity (in tonnes) of the [limiting] [key] component intended for a specific toxic end product shall be considered equivalent to the quantity (in tonnes) of this toxic end product calculated on a stoichiometric basis assuming 100 per cent yield.
2. A requirement to destroy a given quantity of the [limiting] [key] component shall entail a requirement to destroy a corresponding quantity of the other component, calculated from the actual weight ratio of the components in the relevant type of binary chemical munition/device.
3. If more of the other component is declared than is needed, based on the actual weight ratio between components, then the excess shall be destroyed over the first two years after destruction operations begin.
4. At the end of each subsequent operational year a State Party may retain an amount of the other declared component that is determined on the basis of the actual weight ratio of the components in the relevant type of binary chemical munition/device.

D. MULTICOMPONENT CHEMICAL WEAPONS

For multicomponent chemical weapons the order of destruction shall be analogous to that envisaged for binary chemical weapons.

IV. INTERNATIONAL VERIFICATION OF THE DESTRUCTION OF CHEMICAL WEAPONS

1. The purpose of verification of destruction of chemical weapons shall be:
 - to confirm the identity and quantity of the chemical weapons stocks to be destroyed, and
 - to confirm that these stocks for all practical purposes have been destroyed.

2. General plans for destruction of chemical weapons

The general plan for destruction of chemical weapons, submitted pursuant to Article IV shall specify:

(a) a general schedule for destruction, giving types and quantities of chemical weapons planned to be destroyed in each period;

(b) the number of chemical weapons destruction facilities existing or planned, to be operated over the 10 years destruction period;

(c) for each existing or planned chemical weapons destruction facility:

- name and address;
- location;
- chemical weapons intended to be destroyed;
- method of destruction;
- capacity;
- expected period of operation;
- products of the destruction process.

3. Detailed plans for destruction of chemical weapons

The detailed plans submitted pursuant to Article IV, six months before each destruction period, shall specify:

(a) the aggregate quantity of each individual type of chemical weapons planned to be destroyed at each facility;

(b) the number of chemical weapons destruction facilities and a detailed schedule for the destruction of chemical weapons at each of these facilities;

(c) data about each destruction facility:

- name, postal address, geographical location;
- method of destruction;
- end-products;
- layout plan of the facility;

- technological scheme;
- operation manuals;
- the system of verification;
- safety measures in force at the facility;
- living and working conditions for the Inspectors.

(d) data about any storage facility at the destruction facility planned to provide chemical weapons directly to it during the destruction period,

- layout plan of the facility;
- method and volume of storage estimated by types and quantities of chemical weapons;
- types and quantities of chemical weapons to be stored at the facility during the destruction period;
- safety measures in force at the facility.

(e) After the submission of the first detailed plans, subsequent annual plans should contain only changes and additions to required data elements submitted in the first detailed plans.

4. Review of detailed plans for the destruction of chemical weapons

(a) On the basis of the detailed plan for destruction and proposed measures for verification submitted by the State Party, and as the case may be, on experience from previous inspections and on the relevant agreement(s) on subsidiary arrangements, the Technical Secretariat shall prepare before each destruction period, a plan for verifying the destruction of chemical weapons, consulting closely with the State Party. Any differences between the Technical Secretariat and the State Party should be resolved through consultations. Any unresolved matters shall be forwarded to the Executive Council for appropriate action with a view to facilitating the full implementation of the Convention.

(b) The agreed combined detailed plans for destruction and verification plans, with an appropriate recommendation by the Technical Secretariat, will be forwarded to the members of the Executive Council for review. The members of the Executive Council shall review the plans with a view to approving them, consistent with verification objectives. This review is designed to determine that the destruction of chemical weapons, as planned, is consistent with the obligations under the Convention and the objective of destroying the chemical

weapons. It should also confirm that verification schemes for destruction are consistent with verification objectives, and are efficient and workable. This review should be completed 60 days before the destruction period.

(c) Each member of the Executive Council may consult with the Technical Secretariat on any issues regarding the adequacy of the combined plan for destruction and verification. If there are no objections by any members of the Executive Council, the plan shall be put into action.

(d) If there are any difficulties, the Executive Council shall enter into consultations with the State Party to reconcile them. If any difficulties remain unresolved they should be referred to the Conference of the States Parties.

(e) After a review of the detailed plans of destruction of chemical weapons, the Technical Secretariat, if the need arises, will enter into consultation with the State Party concerned in order to ensure its chemical weapons destruction facility(ies) is (are) designed to assure destruction of chemical weapons, to allow advanced planning on how verification measures may be applied and to ensure that the application of verification measures is consistent with proper facility(ies) operation, and that the facility(ies) operation allows appropriate verification.

(f) Destruction and verification should proceed according to the agreed plan as referred to above. Such verification should not interfere with the destruction process.

5. Agreements on subsidiary arrangements

For each destruction facility, States Parties should conclude with the Organization detailed agreements on subsidiary arrangements for the systematic verification of destruction of chemical weapons. Such agreements shall be based on a Model Agreement and shall specify, for each destruction facility, the detailed on-site inspection procedures and arrangements for the removal of chemical weapons from the storage facility at the destruction facility, transport from this storage facility to their destruction and the monitoring by on-site instruments, taking into account the specific characteristics of the destruction facility and its mode of operation. The Model Agreement shall include provisions to take into account the need for maintenance and modifications.

6. Inspectors will be granted access to each chemical weapons destruction facility [30 days] prior to commencement of active destruction phases for the purpose of carrying out an engineering review of the facility, including the facility's construction and layout, the equipment and instruments for measuring and controlling the destruction process, and the checking and testing of the accuracy of the verification equipment.

7. Systematic international on-site verification of destruction of chemical weapons

(a) The Inspectors will be granted access to conduct their activities at the chemical weapons destruction facilities and the chemical weapons storage facilities thereat during the entire active phase of destruction. They will conduct their activities in the presence and with the co-operation of representatives of the facility's management and the National Authority if they wish to be present.

(b) The Inspectors may monitor by either physical observation or devices:

- (i) the chemical weapons storage facility at the destruction facility and the chemical weapons present;
- (ii) the movement of chemical weapons from the storage facility to the destruction facility;
- (iii) the process of destruction (assuring that no chemical weapons are diverted);
- (iv) the material balance; and
- (v) the accuracy and calibration of the instruments.

(c) To the extent consistent with verification needs, verification procedures should make use of information from routine facility operations.

(d) After the completion of each period of destruction, the Technical Secretariat shall certify the declaration of the National Authority, reporting the completion of destruction of the designated quantity of chemical weapons.

(e) Inspectors shall, in accordance with agreements on subsidiary arrangements:

- have unimpeded access to all parts of the destruction facilities, and the storage facilities thereat, any munitions, devices, bulk containers, or other containers, therein. While conducting their activity, Inspectors shall comply with the safety regulations at these facilities. The items to be inspected will be chosen by the Inspectors in accordance with the verification plan that has been agreed to by the State Party and approved by the Executive Council;
- bring with them and use such agreed instruments as may be necessary for the completion of their tasks;
- monitor the systematic on-site analysis of samples during the destruction process;

- receive, if necessary, samples taken at their request from any devices, bulk containers and other containers at the destruction facility or the storage facility thereat. Such samples will be taken and analysed by representatives of the State Party in the presence of the Inspectors;
- communicate freely with the Technical Secretariat;
- if necessary, transfer samples for analysis off-site at a laboratory designated by the Organization, 1/ in accordance with agreed procedures;
- ensure, in accordance with agreed procedures, that samples transported, stored and processed are not tampered with;
- afford the opportunity to the inspected State Party to be present when samples are analysed.

(f) The State Party receiving the inspection shall, in accordance with agreed procedures:

- have the right to accompany the Inspectors at all times during the inspection and observe all their verification activities at the destruction facility, and the storage facility thereat;
- have the right to retain duplicates of all samples taken at the Inspectors' request and be present when samples are analysed;
- have the right to inspect any agreed standard instrument used or installed by the Inspectors and to have it tested in the presence of its personnel;
- provide assistance to the Inspectors, upon their request, for the installation of seals or monitoring devices and the analysis of samples on-site as appropriate to the monitoring of the destruction process;
- receive copies of the reports on inspections of its destruction facility(ies);
- receive copies, at its request, of the information and data gathered about its destruction facility(ies) by the Technical Secretariat.

1/ The designation of the organ of the Organization that will be entrusted with this task will be considered further and specified in the text.

(g) If Inspectors detect irregularities which may give rise to doubts they will report the irregularities to the representatives of the facility and the National Authority and request that the situation be resolved. Uncorrected irregularities will be reported to the Executive Council.

(h) After each inspection to the destruction facility, Inspectors shall submit a report with their findings to the (Director-General of the) Technical Secretariat which will transmit a copy of this report to the State Party having received the inspection.

8. Chemical weapons storage facilities at chemical weapons destruction facilities

(a) Inspectors shall verify any arrival of chemical weapons at a chemical weapons storage facility at a chemical weapons destruction facility, as referred to in paragraph 6 (d) of section II of this Annex, and the storing of these chemical weapons. They shall employ, as appropriate, agreed seals, markers or other inventory control procedures to facilitate an accurate inventory of the chemical weapons in this storage facility. They shall install such agreed seals as may be necessary to verify that stocks are removed only for destruction.

(b) As soon and as long as chemical weapons are stored at chemical weapons storage facilities at chemical weapons destruction facilities, these storage facilities shall be subject to international systematic monitoring, as referred to in relevant provisions of paragraph 5 of section II of the present Annex, in conformity with the relevant agreements on subsidiary arrangements or, if no such agreement has been concluded, with the agreed combined plan for destruction and verification.

(c) The Inspectors will make any appropriate adjustments in the monitoring system in accordance with the relevant agreement on subsidiary arrangements whenever inventory changes occur.

(d) At the end of an active destruction phase, Inspectors will make an inventory of the chemical weapons that have been removed from the storage facility to be destroyed. They shall verify the accuracy of the inventory of the chemical weapons remaining employing inventory control procedures as referred to above under (a). They shall install such agreed seals as may be necessary to ensure the securing of the storage facility.

(e) The international systematic monitoring of a chemical weapons storage facility at a chemical weapons destruction facility may be discontinued when the active destruction phase is completed, if no chemical weapons remain. If, in addition, no chemical weapons are planned to be stored at this facility, the international systematic monitoring shall be terminated in accordance with section II, paragraph 5 (g) of this Annex.

ANNEX TO ARTICLE V

I. DEFINITIONS

The equipment mentioned in the definition of Chemical Weapons Production Facility in Article II covers Specialized Equipment and Standard Equipment.

- "Specialized Equipment" means:

- . the main production train, including any reactor or equipment for product synthesis, separation or purification, any equipment used directly for heat transfer in the final technological stage (for example, in reactors or in product separation), as well as any other equipment which has been in contact with any Schedule 1 chemical, or any other chemical that has no use for purposes not prohibited under the Convention above [1] tonne per year but can be used for chemical weapons purposes, or would be if the facility were operated.
- . any chemical weapon filling machines.
- . any other equipment specially designed, built or installed for the operation of the facility as a chemical weapons production facility, as distinct from a facility constructed according to prevailing commercial industry standards for facilities not producing super-toxic lethal or corrosive chemicals. (Examples include equipment made of high-nickel alloys or other special corrosion-resistant material; special equipment for waste control, waste treatment, air filtering, or solvent recovery; special containment enclosures and safety shields; non-standard laboratory equipment used to analyse toxic chemicals for chemical weapons purposes; custom-designed process control panels; dedicated spares for Specialized Equipment.)

- "Standard Equipment" means:

- . production equipment which is generally used in the chemical industry and is not included in the types of Specialized Equipment;
- . other equipment commonly used in the chemical industry, such as fire-fighting equipment, guard and security/safety surveillance equipment, medical facilities, laboratory facilities, communications equipment.

The buildings mentioned in the definition of Chemical Weapons Production Facility in Article II cover Specialized Buildings and Standard Buildings.

- "Specialized Building" means:

- . any building, including underground structures, containing Specialized Equipment in a production or filling configuration;
- . any building, including underground structures, which has distinctive features which distinguish it from buildings normally used for chemical production or filling activities not banned by the Convention.

- "Standard Building" means:

- . any building, including underground structures, constructed to prevailing industry standards for facilities not producing super-toxic lethal or corrosive chemicals.

II. DECLARATIONS ON CHEMICAL WEAPONS PRODUCTION FACILITIES

A. Declarations of chemical weapons production facilities

The declaration shall contain for each facility:

1. The names of the facility, names of the owners, and names of the companies or enterprises operating the facility since 1 January 1946.
2. The exact location of the facility (including the address, location of the complex, location of the facility within the complex including the specific building and structure number, if any).
3. Chemical weapons produced at the facility and dates that they were produced:
 - (a) Types and quantities of chemicals produced and bulk containers filled;
 - (b) Types and quantities of munitions or devices filled; identity of chemical fill.
4. Capacity of the facility for chemical weapons production or filling, calculated in accordance with the definition of Production Capacity and expressed in terms of:
 - (a) The quantity of end-product that the facility can produce in one year;

(b) The quantity of chemical that the facility can fill into each type of munition or device in one year.

5. Status of and plans for the facility:

(a) When production of chemical weapons ceased;

(b) Whether it has been destroyed; date of final destruction;

(c) Whether it has been converted to activities not related to chemical weapons production; date of start of such activities; nature of [most recent] activities [, e.g. most recent production, types and quantities of products]; ^{1/}

(d) Whether it has already been converted for destruction of chemical weapons; date of conversion;

(e) Whether it will be temporarily converted for destruction of chemical weapons.

6. For facilities that were not destroyed, detailed facility description:

(a) Layout of the facility;

(b) Process flow diagram;

(c) Detailed inventory of equipment and any spare or replacement parts on site;

[(d) The quantities of any chemicals or munitions on site, indicating what is already declared under Article IV.]

7. Lists of Specialized Equipment and Standard Equipment and any spare or replacement parts for chemical weapons production which have been removed from the facility; current status, if known.

B. Declarations of transfers

1. Chemical Weapons Production Equipment means:

- Specialized Equipment;

- equipment for the production of equipment specifically designed for use directly in connection with chemical weapons employment;

^{1/} The problems of documentation and identification of relevant parts of such facilities need further consideration.

- equipment designed or used exclusively for producing non-chemical parts for chemical munitions.

2. The declaration should specify:

- (a) who received/transferred chemical weapons production equipment [and technical documentation];
- (b) the identity of the equipment;
- (c) date of transfer;
- (d) whether the equipment [and technical documentation] was destroyed, if known;
- (e) current disposition, if known.

3. A State Party that has transferred or received chemical weapons production equipment since 1 January 1946 shall declare these transfers and receipts in accordance with paragraph 2 above. When not all the specified data are available for the period between 1 January 1946 and [1 January 1970] [[20][10] years before the entry into force of the Convention], the State Party shall declare whatever information is still available to it and provide an explanation as to why it cannot submit a full declaration.

C. Annual declarations on destruction

1. The annual plan for destruction, to be submitted at least three months in advance of the coming destruction year, shall specify:

- (a) capacity to be destroyed;
- (b) location of the facilities where destruction will take place;
- (c) list of buildings and equipment that will be destroyed at each facility;
- (d) planned method of destruction.

2. The annual report on destruction, to be submitted within three months after the previous destruction year shall specify:

- (a) capacity destroyed;
- (b) location of the facilities where destruction took place;

- (c) list of buildings and equipment that were destroyed at each facility;
- (d) method of destruction.

D. Declarations with respect to chemical weapons production facilities under the control of others on the territory of the State Party

All elements contained in part II A and C of this Annex shall be declared. It is the responsibility of the State Party to make appropriate arrangements with the State which controls or controlled the facility that the declarations are made. If the State Party is not able to fulfil this obligation, it shall state the reasons thereof. 1/

III. PRINCIPLES AND METHODS FOR CLOSURE, MAINTENANCE, TEMPORARY CONVERSION AND DESTRUCTION OF CHEMICAL WEAPONS PRODUCTION FACILITIES

A. General

Each State Party shall decide on methods to be applied for the destruction 2/ of its chemical weapons production facilities, according to the principles laid down in Article V and in this Annex.

B. Closure and methods for closing the facility

1. The purpose of the closure of a chemical weapons production facility is to render it inoperable.
2. Agreed measures for closure will be taken by the State Party with due regard to the specific characteristics of each facility. Such measures shall include, inter alia: 3/
 - prohibition of occupation of the Specialized Buildings and Standard Buildings of the facility except for agreed activities;
 - disconnection of equipment directly related to the production of chemical weapons to include, inter alia, process control equipment and utilities;

1/ Further consideration is needed with regard to the obligation to provide the above information.

2/ Further discussion is needed of possible methods of destruction and of related definitions.

3/ The activities and items in these measures will need further elaboration and discussion in light of methods of destruction and characteristics of specific facilities.

- decommissioning of protective installations and equipment used exclusively for the safety of operations of the chemical weapons production facility;
- interruption of rail, road and other access routes for heavy transport to the chemical weapons production facility except those required for agreed activities.

3. While the chemical weapons production facility remains closed, the State Party may continue safety and physical security activities at the facility.

C. Technical maintenance of chemical weapons production facilities prior to their destruction

1. A State Party may carry out standard maintenance activities [in particular][only] for safety reasons at its chemical weapons production facilities, including visual inspection, preventive maintenance, and routine repairs.
2. All planned maintenance activities shall be specified in the general and detailed plan for destruction. Maintenance activities shall not include:
 - (a) [replacement of any process equipment];
 - (b) modification of the characteristics of the chemical process equipment;
 - (c) production of chemicals of any type.
3. All maintenance activities shall be subject to monitoring by the Technical Secretariat.

D. Activities related to destruction

1. Destruction of equipment and buildings covered by the definition of a Chemical Weapons Production Facility
 - All Specialized Equipment and Standard Equipment shall be physically destroyed.
 - All Specialized Buildings and Standard Buildings shall be physically destroyed.

2. Facilities for producing unfilled chemical munitions and equipment for chemical weapons employment

- Facilities used exclusively for production of: (a) non-chemical parts for chemical munitions or (b) equipment specifically designed for use directly in connection with chemical weapons employment, shall be declared and destroyed. The destruction process and its verification shall be conducted according to the provisions of Article V that govern destruction of chemical weapons production facilities.
- All equipment designed or used exclusively for producing non-chemical parts for chemical munitions shall be physically destroyed. Such equipment, which includes specially-designed moulds and metal-forming dies, may be brought to a special location for destruction.
- All buildings and standard equipment used for such production activities shall be destroyed or converted for purposes not prohibited under the convention, with confirmation as necessary through consultations and inspections as provided for under Article IX.
- Activities for purposes not prohibited under the convention may continue while destruction or conversion proceeds.

E. Activities related to temporary conversion of chemical weapons production facilities into chemical weapons destruction facilities

Conversion guidelines are as follows:

1. Measures pertaining to the temporary conversion of chemical weapons production facilities into chemical weapons destruction facilities should ensure that the régime for the temporarily converted facilities is at least as stringent as the régime for facilities that have not been converted.
2. Chemical weapons production facilities converted into chemical weapons destruction facilities before the Convention enters into force shall be declared under the category of chemical weapons production facilities. They shall be subject to an initial visit by Inspectors who shall confirm the correctness of the information about those facilities. Verification that the conversion of these facilities was performed in such a manner as to render them inoperable as chemical weapons production facilities shall also be required, and shall fall within the framework of measures provided for the facilities that are to be rendered inoperable within three months after the Convention enters into force.
3. A State Party which intends to carry out a conversion of facilities after the Convention enters into force shall submit to the Technical Secretariat a general facility conversion plan, and subsequently shall submit annual plans. Conversion measures shall be carried out under international verification.

4. Should the State Party have the need of converting into a chemical weapons destruction facility an additional chemical weapons production facility that had been closed after the Convention entered into force, it shall inform the Technical Secretariat thereof [at least three] months in advance. The Technical Secretariat, in conjunction with the State Party, shall make sure that necessary measures are taken to render that facility, after its conversion, inoperable as a chemical weapons production facility.

A facility converted for the destruction of chemical weapons shall not be more fit for resuming chemical weapons production than a facility which has been closed and is under maintenance. Its reactivation shall require no less time.

5. During the active phase of the destruction of chemical weapons, converted facilities shall be subject to verification measures provided for destruction facilities; at all other times they shall be verified under the provisions applicable to closed non-converted chemical weapons production facilities.

6. Converted chemical weapons production facilities shall be destroyed not later than 10 years after the Convention enters into force.

7. Any measures for the conversion of any given chemical weapons production facility are facility-specific and shall depend upon its individual characteristics.

8. The set of measures carried out for the purposes of converting a chemical weapons production facility into a chemical weapons destruction facility shall not be less than that which is provided for the disabling of other facilities to be carried out during the three months after the Convention enters into force.

IV. ORDER OF DESTRUCTION

1. The order of destruction is based on the obligations specified in Article 1 and the other Articles of the Convention, including obligations regarding systematic international on-site verification; it takes into account interests of States Parties for undiminished security during the destruction period; confidence-building in the early part of the destruction stage; gradual acquisition of experience in the course of destroying chemical weapons production facilities and applicability irrespective of the actual characteristics of the facilities and the methods chosen for their destruction. The order of destruction is based on the principle of levelling out.

2. A State Party shall, for each destruction period, determine which chemical weapons production facilities are to be destroyed and carry out the destruction in such a way that not more than what is specified below remains at the end of each destruction period. A State Party is not precluded from destroying its facilities at a faster pace.

3. The following provisions shall apply to chemical weapons production facilities that produce Schedule 1 chemicals:

(a) Each State Party possessing such facilities shall start the destruction not later than one year from the date the Convention enters into force for it, and shall complete it not later than 10 years after the Convention enters into force. For a State which is a Party at the entry into force of the Convention, this overall period shall be divided into three separate destruction periods, namely, years 2-5, years 6-8, and years 9-10. For States which become a Party after the entry into force of the Convention, the destruction periods shall be adapted, taking into account paragraphs 1 and 2 above;

(b) Annual Production Capacity, calculated in accordance with the definition of Production Capacity, shall be used as the comparison factor for such facilities. It shall be expressed in agent tonnes, taking into account the rules specified for binary chemical weapons;

(c) Appropriate agreed levels shall be established for the end of the eighth year after the Convention enters into force. Production capacity that exceeds the relevant level shall be destroyed in equal increments during the first two destruction periods;

(d) A requirement to destroy a given amount of capacity shall entail a requirement to destroy any other chemical weapons production facility that supplied the Schedule 1 facility or filled the Schedule 1 chemical produced there into munitions or devices;

(e) Chemical weapons production facilities that have been converted temporarily for destruction of chemical weapons shall continue to be subject to the obligation to destroy capacity according to the provisions of the paragraph.

4. Each State Party possessing chemical weapons production facilities not covered in paragraph 3 above shall start the destruction of these facilities not later than one year from the date the Convention enters into force for it, and should complete it not later than five years after the Convention enters into force.

V. PLANS

A. General Plans

1. For each facility the following information should be supplied:
 - (a) envisaged time-frame for measures to be taken;
 - (b) methods of destruction.
2. In relation to temporary conversion into chemical weapons destruction facility:
 - (i) envisaged time-frame for conversion into a destruction facility;
 - (ii) envisaged time for utilizing the facility as a destruction facility;
 - (iii) description of the new facility;
 - (iv) method of destruction of special equipment;
 - (v) time-frame for destruction of the converted facility after it has been utilized to destroy chemical weapons;
 - (vi) method of destruction of the converted facility.

B. Detailed plans

1. The detailed plans for destruction of each facility should contain:
 - (a) detailed time schedule of destruction process;
 - (b) layout of the facility;
 - (c) process flow diagram;
 - (d) detailed inventory of equipment, buildings and other items to be destroyed;
 - (e) measures to be applied to each item on the inventory;
 - (f) proposed measures for verification;
 - (g) security/safety measures to be observed during the destruction of the facility;
 - (h) working and living conditions to be provided for Inspectors.

2. In relation to the temporary conversion into a chemical weapons destruction facility.

In addition to the information contained in part V.B.1 of this Annex the following information should be provided:

- (i) method of conversion into a destruction facility;
- (ii) data on the destruction facility, in accordance with the Annex to Article IV, part IV.3.(c) and (d).

3. In relation to destruction of a facility that was temporarily converted for destruction of chemical weapons, information should be provided in accordance with part V.B.1 of this Annex.

VI. INTERNATIONAL VERIFICATION OF DECLARATIONS OF CHEMICAL WEAPONS PRODUCTION FACILITIES AND THEIR CLOSURE, INTERNATIONAL SYSTEMATIC MONITORING, INTERNATIONAL SYSTEMATIC VERIFICATION OF DESTRUCTION OF CHEMICAL WEAPONS PRODUCTION FACILITIES ^{1/}

1. International verification of declarations of chemical weapons production facilities and of cessation of their activities

(a) International verification by initial on-site inspections

- (i) The purpose of the international verification of declarations of chemical weapons production facilities shall be:
 - to confirm that all activity has ceased except that required for closure;
 - to confirm through on-site inspections the accuracy of the declarations made in accordance with Article V.
- (ii) The Inspectors shall conduct this initial verification promptly, and in any event not later than [60] days after a declaration is submitted.
- (iii) They shall employ, as appropriate, agreed seals, markers or other inventory control procedures to facilitate an accurate inventory of the declared items at each chemical weapons production facility.

^{1/} This Section of this Annex will require further discussion and elaboration upon resolution of the definitions of chemical weapons, chemical weapons production facilities, and methods of destruction.

(iv) Inspectors shall install such agreed devices as may be necessary to indicate if any resumption of production of chemical weapons occurs or if any declared item is removed. They shall take the necessary precaution not to hinder closure activities by the State Party. Inspectors may return to maintain and verify the integrity of the devices.

(b) Co-ordination for international systematic monitoring of chemical weapons production facilities

In conjunction with the initial on-site inspections to verify declarations of chemical weapons production facilities, the Inspectors shall undertake necessary co-ordination for measures of systematic monitoring of these facilities as provided for in paragraph 4, below.

2. Agreements on subsidiary arrangements 1/

(a) Within [6] months after entry into force of the Convention, States Parties shall conclude with the Organization detailed agreements on subsidiary arrangements for the systematic monitoring of their chemical weapons production facilities. Such agreements shall be based on a Model Agreement and shall specify for each production facility the detailed inspection procedures and arrangements for the installation, operation and maintenance of the seals and monitoring devices by the Technical Secretariat, taking into account the specific characteristics of each facility. The Model Agreement shall include provisions to take into account future technological developments.

(b) States Parties shall ensure that the verification of declarations of chemical weapons production facilities and the initiation of systematic monitoring can be accomplished by the Technical Secretariat at all such facilities within the agreed time-frames after the Convention enters into force. 2/

3. International verification of closure of chemical weapons production facilities

Subsequent to the on-site verification of declarations as referred to in paragraph 1, the Inspectors shall conduct on-site inspections at each chemical weapons production facility for the purpose of verifying that measures referred to under (III.B.2) of this Annex have been accomplished.

1/ The coverage of the subsidiary arrangements is to be discussed.

2/ Procedures to ensure the implementation of the verification scheme within designated time-frames are to be developed.

4. International systematic monitoring of chemical weapons production facilities

(a) The purpose of the international systematic monitoring of a chemical weapons production facility shall be to ensure that no resumption of production of chemical weapons nor removal of declared items would go undetected at this facility.

(b) The international systematic monitoring shall be initiated as soon as possible after the closure of the chemical weapons production facility and shall continue until this facility is destroyed. Systematic monitoring shall be ensured, in accordance with the agreements on subsidiary arrangements, through a combination of continuous monitoring with on-site instruments and systematic verification by international on-site inspections or, where the continuous monitoring with on-site instruments is not feasible, by the presence of Inspectors.

(c) In conjunction with the on-site verification of the closure of chemical weapons production facilities referred to in paragraph 4 above and, if the relevant agreement on subsidiary arrangements for the systematic monitoring of a chemical weapons production facility has been concluded, Inspectors shall install for the purpose of this systematic monitoring a monitoring system as referred to under (e) below. If no such agreement has been concluded, the Inspectors will initiate the systematic monitoring by their continuous presence on-site until the agreement is concluded, and the monitoring system installed and activated.

(d) In the period before the activation of the monitoring system and at other times when the continuous monitoring with on-site instruments is not feasible, devices installed by Inspectors, in accordance with paragraph 1 above, may only be removed in the presence of an Inspector. If an extraordinary event results in, or requires, the removal of a device when an Inspector is not present, a State Party shall immediately inform the Technical Secretariat and Inspectors will return as soon as possible to validate the inventory and re-establish the devices.

(e) Monitoring with instruments

(i) For the purpose of the systematic monitoring of a chemical weapons production facility, Inspectors will install, in the presence of host country personnel and in conformity with the relevant agreement on subsidiary arrangements, a monitoring system consisting of, inter alia, sensors, ancillary equipment and transmission systems. The agreed types of these instruments shall be specified in the Model Agreement. They shall incorporate, inter alia, seals and other tamper-indicating and tamper-resistant devices as well as data protection and data authentication features.

- (ii) The monitoring system shall have such abilities and be installed, adjusted or directed in such a way as to correspond strictly and efficiently to the sole purpose of detecting prohibited or unauthorized activities within the chemical weapons production facility as referred to above under (a). The coverage of the monitoring system shall be limited accordingly. The monitoring system will signal the Technical Secretariat if any tampering with its components or interference with its functioning occurs. Redundancy shall be built into the monitoring system to ensure that failure of an individual component will not jeopardize the monitoring capability of the system.
- (iii) When the monitoring system is activated, Inspectors will verify the accuracy of the inventory of declared items at each chemical weapons production facility as required.
- (iv) Data will be transmitted from each production facility to the Technical Secretariat by (means to be determined). The transmission system will incorporate frequent transmissions from the production facility and a query and response system between the production facility and the Technical Secretariat. Inspectors shall periodically check the proper functioning of the monitoring system.
- (v) In the event that the monitoring system indicates any irregularity, the Inspectors would immediately determine whether this resulted from equipment malfunction or activities at the production facility. If, after this examination the problem remained unresolved, the Technical Secretariat would immediately ascertain the actual situation, including through immediate on-site inspection or visit of the production facility if necessary. The Technical Secretariat shall report any such problem immediately after its detection to the State Party who should assist in its resolution.
- (vi) The State Party shall immediately notify the Technical Secretariat if an event at the production facility occurs, or may occur, which may have an impact on the monitoring system. The State Party shall co-ordinate subsequent actions with the Technical Secretariat with a view to restoring the operation of the monitoring system and establishing interim measures, if necessary, as soon as possible.
- (f) Systematic on-site inspections and visits
 - (i) During each inspection, the Inspectors will verify that the monitoring system is functioning correctly and verify the declared inventory as required. In addition, visits to service the monitoring system will be required to perform any necessary maintenance or replacement of equipment, or to adjust the coverage of the monitoring system as required.

- (ii) (The guidelines for determining the frequency of systematic on-site inspections are to be elaborated.) The particular production facility to be inspected shall be chosen by the Technical Secretariat in such a way as to preclude the prediction of precisely when the facility is to be inspected.

5. International verification of destruction of chemical weapons production facilities

(a) The purpose of international verification of destruction of chemical weapons production facilities shall be to confirm that the facility is destroyed as such in accordance with the obligations under the Convention and that each item on the declared inventory is destroyed in accordance with the agreed detailed plan for destruction.

(b) Six months before destruction of a chemical weapons production facility, a State Party shall provide to the Technical Secretariat the detailed plans for destruction to include proposed measures for verification of destruction referred to in Section V.B.1 (f) of the present Annex, with respect to, e.g.:

- timing of the presence of the Inspectors at the facility to be destroyed;
- procedures for verification of measures to be applied to each item on the declared inventory;
- measures for phasing out systematic monitoring or for adjustment of the coverage of the monitoring system.

(c) On the basis of the detailed plan for destruction and proposed measures for verification submitted by the State Party, and on experience from previous inspections, the Technical Secretariat shall prepare a plan for verifying the destruction of the facility, consulting closely with the State Party. Any differences between the Technical Secretariat and the State Party concerning appropriate measures should be resolved through consultations. Any unresolved matters shall be forwarded to the Executive Council ^{1/} for appropriate action with a view to facilitating the full implementation of the Convention.

(d) To ensure that the provisions of Article V and this Annex are fulfilled, the combined plans for destruction and verification shall be agreed upon between the Executive Council and the State Party. This agreement should be completed [60] days before the planned initiation of destruction.

^{1/} The role of the Executive Council in the review process will need to be reviewed in the light of its composition and decision-making process.

(e) Each member of the Executive Council may consult with the Technical Secretariat on any issues regarding the adequacy of the combined plan for destruction and verification. If there are no objections by any members of the Executive Council, the plan shall be put into action.

(f) If there are any difficulties, the Executive Council should enter into consultations with the State Party to reconcile them. If any difficulties remain unresolved they should be referred to the Conference of the States Parties. The resolution of any differences over methods of destruction should not delay the execution of other parts of the destruction plan that are acceptable.

(g) If agreement is not reached with the Executive Council on aspects of verification, or if the approved verification plan cannot be put into action, verification of destruction will proceed by the continuous on-site monitoring and presence of Inspectors.

(h) Destruction and verification should proceed according to the agreed plan. The verification should not unduly interfere with the destruction process and should be conducted through the presence of on-site Inspectors to witness the destruction. 1/

(i) If required verification or destruction actions are not taken as planned, all States Parties should be so informed. (Procedures to be developed.)

(j) For those items that may be diverted for permitted purposes. 2/

(k) When all items on the declared inventory have been destroyed, the Technical Secretariat shall certify, in writing, the declaration of the State Party to that effect. After this certification, the Technical Secretariat shall terminate the international systematic monitoring of the chemical weapons production facility and will promptly remove all devices and monitoring equipment installed by the Inspectors.

(1) After this certification, the State Party will make the declaration that the facility has been destroyed.

6. International verification of temporary conversion of a chemical weapons production facility into a chemical weapons destruction facility

(to be elaborated)

1/ This verification measure may not necessarily be the only one and others, as appropriate, may need to be further elaborated.

2/ Specification of the items, permitted purposes and methods of verification of disposition will need to be elaborated.

7. Inspections and visits

(a) The (Director-General of the) Technical Secretariat shall notify the State Party of its decision to inspect or visit a chemical weapons production facility 48 hours prior to the planned arrival of the inspection team at the facility for systematic inspections or visits. In the event of inspections or visits to resolve urgent problems, this period may be shortened. The (Director-General of the) Technical Secretariat shall specify the purpose(s) of the inspection or visit.

(b) A State Party shall make any necessary preparations for the arrival of the Inspectors and shall ensure their expeditious transportation from their point of entry on the territory of the State Party to the chemical weapons production facility. The agreement on subsidiary arrangements will specify administrative arrangements for Inspectors.

(c) Inspectors shall, in accordance with agreements on subsidiary arrangements:

- have unimpeded access to all parts of the chemical weapons production facilities. While conducting their activity, Inspectors shall comply with the safety regulations at the facility. The items on the declared inventory to be inspected will be chosen by the Inspectors;
- bring with them and use such agreed instruments as may be necessary for the completion of their tasks;
- communicate freely with the Technical Secretariat.

(d) The State Party receiving the inspection shall, in accordance with agreed procedures:

- have the right to accompany the Inspectors at all times during the inspection and observe all their verification activities at the chemical weapons production facility;
- have the right to inspect any instrument used or installed by the Inspectors and to have it tested in the presence of State Party personnel;
- provide assistance to the Inspectors upon their request for the installation of the monitoring system;
- receive copies of the reports on inspections of its chemical weapons production facility(ies);
- receive copies, at its request, of the information and data gathered about its chemical weapons production facility(ies) by the Technical Secretariat.

(e) The Inspectors ^{1/} may request clarification of any ambiguities arising from the inspection. In the event that any ambiguities arise which cannot be resolved in the course of the inspections, the Inspectors shall inform the (Director-General of the) Technical Secretariat immediately.

(f) After each inspection or visit to the chemical weapons production facility, Inspectors shall submit a report with their findings to the (Director-General of the) Technical Secretariat which will transmit a copy of this report to the State Party having received the inspection or visit.

^{1/} The question of whether or not an individual Inspector shall have the rights set out in this and the following paragraph remains open.

ANNEX 1 TO ARTICLE VI

Régime for chemicals on Schedule 1

GENERAL PROVISIONS

1. A State Party shall not produce, acquire, retain, transfer or use chemicals in Schedule 1 unless:
 - (i) the chemicals are applied to research, medical, pharmaceutical or protective purposes, and
 - (ii) the types and quantities of chemicals are strictly limited to those which can be justified for such purposes, and
 - (iii) the aggregate amount of such chemicals at any given time for such purposes is equal to or less than one metric tonne, and
 - (iv) the aggregate amount for such purposes acquired by a State Party in any calendar year through production, withdrawal from-chemical weapons stocks and transfer is equal to or less than one metric tonne.

TRANSFERS

2. A State Party may transfer chemicals in Schedule 1 outside its territory only to another State Party and only for research, medical, pharmaceutical or protective purposes in accordance with paragraph 1.
3. Chemicals transferred shall not be retransferred to a third State.
4. Thirty days prior to any transfer to another State Party both States Parties shall notify the Technical Secretariat.
5. Each State Party shall make a detailed annual declaration regarding transfers during the previous calendar year. The declaration shall be submitted within ... months after the end of that year and shall for each chemical in Schedule 1 include the following information:
 - (i) the chemical name, structural formula and Chemical Abstracts Service Registry Number (if assigned);
 - (ii) the quantity acquired from other States or transferred to other States Parties. For each transfer the quantity, recipient and purpose should be included.

PRODUCTION

1. Each State Party which produces chemicals in Schedule 1 for research, medical, pharmaceutical or protective purposes shall carry out the production at a single small-scale facility approved by the State Party, the only exceptions being those set forth in paragraphs 2 and 3 below.

The production at a single small-scale facility shall be carried out in reaction vessels in production lines not configured for continuous operation; the volume of such a reaction vessel shall not exceed 100 litres while the total volume of all reaction vessels with a volume exceeding 5 litres shall not be more than 500 litres.

2. (a) Production of Schedule 1 chemicals in aggregate quantities not exceeding 10 kg per year may be carried out for protective purposes at one facility outside a single small-scale facility.

(b) Production of Schedule 1 chemicals in quantities of more than 100 g per year may be carried out for research, medical or pharmaceutical purposes outside a single small-scale facility in aggregate quantities not exceeding 10 kg per year per facility. 1/

Such facilities shall be approved by the State Party.

3. Synthesis of Schedule 1 chemicals for research, medical or pharmaceutical purposes, but not for protective purposes, may be carried out at laboratories 2/ [approved by the State Party] in aggregate quantities less than 100 g per year per facility. 3/

SINGLE SMALL-SCALE FACILITY

I. Declarations

A. Initial declarations

Each State Party which plans to operate such a facility shall provide the Technical Secretariat with the location and a detailed technical description of the facility, including an inventory of equipment and detailed diagrams.

1/ A view was expressed that ultratoxic substances (to be determined) shall not be allowed to be produced in excess of 10 g per year.

2/ A view was expressed that if so requested by the Technical Secretariat detailed information shall be submitted.

3/ The question whether transfer of Schedule 1 chemicals from a laboratory should be permitted or not needs further discussion.

For existing facilities, this information shall be provided not later than 30 days after the Convention enters into force for the State Party. Information on new facilities shall be provided six months before operations are to begin.

B. Advance notifications

Each State Party shall give advance notification to the Technical Secretariat of planned changes related to the initial declaration. The notification shall be submitted not later than ... months before the changes are to take place.

C. Annual declarations

(a) Each State Party possessing a facility shall make a detailed annual declaration regarding the activities of the facility for the previous calendar year. The declaration shall be submitted within ... months after the end of that year and shall include:

1. Identification of the facility
2. For each chemical in Schedule 1 produced, acquired, consumed or stored at the facility, the following information:
 - (i) the chemical name, structural formula and Chemical Abstracts Service Registry Number (if assigned);
 - (ii) the methods employed and quantity produced;
 - (iii) the name and quantity of precursor chemicals listed in Schedules 1, 2, Part A or 3 used for production of chemicals in Schedule 1;
 - (iv) the quantity consumed at the facility and the purpose(s) of the consumption;
 - (v) the quantity received from or shipped to other facilities within the State Party. For each shipment the quantity, recipient and purpose should be included;
 - (vi) the maximum quantity stored at any time during the year;
 - (vii) the quantity stored at the end of the year.
3. Information on any changes at the facility during the year compared to previously submitted detailed technical descriptions of the facility including inventories of equipment and detailed diagrams.

(b) Each State Party possessing a facility shall make a detailed annual declaration regarding the projected activities and the anticipated production at the facility for the coming calendar year. The declaration shall be submitted not later than ... months before the beginning of that year and shall include:

1. Identification of the facility
2. For each chemical in Schedule 1 produced, consumed or stored at the facility, the following information:
 - (i) the chemical name, structural formula and Chemical Abstracts Service Registry Number (if assigned);
 - (ii) the quantity anticipated to be produced and the purpose of the production.
3. Information on any anticipated changes at the facility during the year compared to previously submitted detailed technical descriptions of the facility including inventories of equipment and detailed diagrams.

II. Verification

1. The aim of verification activities at the facility shall be to verify that the quantities of Schedule 1 chemicals produced are correctly declared and, in particular, that their aggregate amount does not exceed one metric tonne.
2. The single small-scale facility shall be subject to systematic international on-site verification, through on-site inspection and monitoring with on-site instruments.
3. The number, intensity, duration, timing and mode of inspections for a particular facility shall be based on the risk to the objectives of the Convention posed by the relevant chemicals, the characteristics of the facility and the nature of the activities carried out there. The guidelines to be used shall include: (to be developed).
4. Each facility shall receive an initial inspection from inspectors promptly after the facility is declared. The purpose of the Initial inspection shall be to verify information provided concerning the facility, including verification of the limits on the reaction vessels as required under this Annex. The purpose of the initial inspection shall also be to obtain any additional information needed for planning future verification activities at the facility, including inspections and use of on-site instruments.

5. Within [3] [6] [12] 1/ 2/ months after the entry into force of the Convention each State Party possessing a facility shall conclude an agreement, 3/ based on a model for an agreement, with the Organization, covering detailed inspection procedures for the facility. 4/

Each State Party planning to establish such a facility after the entry into force of the Convention shall conclude an agreement with the Organization before the facility begins operation or is used.

Each agreement shall include: (to be developed).

1/ The view was expressed that the time periods for conclusion of arrangements for different types of facility subject to inspection under the Convention should be rationalized.

2/ A view was expressed that in light of the need for provisional inspection procedures, pending conclusion of the agreement, 12 months is an undue length of time.

3/ The view was expressed that negotiations on this agreement should commence immediately after the signing of the Convention.

4/ The view was expressed that pending conclusion of the agreement between a State Party and the Organization there would be a need for provisional inspection procedures to be formulated.

FACILITIES COVERED BY PARAGRAPH 2 OF THE SECTION ON PRODUCTION ABOVE

I. Declarations

A. Initial declarations

Each State Party shall provide the Technical Secretariat with the name, location and a detailed technical description of each facility or its relevant part(s) as requested by the Technical Secretariat. The facility producing Schedule 1 chemicals for protective purposes shall be specifically identified. For existing facilities, this information shall be provided not later than 30 days after the Convention enters into force for the State Party. Information on new facilities shall be provided not less than ... before operations are to begin.

B. Advance notifications

Each State Party shall give advance notification to the Technical Secretariat of planned changes related to the initial declaration. The notification shall be submitted not later than ... before the changes are to take place.

C. Annual declarations

(a) Each State Party shall, for each facility, make a detailed annual declaration regarding the activities of the facility for the previous calendar year. The declaration shall be submitted within ... months after the end of that year and shall include:

1. Identification of the facility

2. For each chemical in Schedule 1 the following information:

(i) the chemical name, structural formula and Chemical Abstracts Service Registry Number (if assigned);

(ii) the quantity produced;

and, in case of production for protective purposes, methods employed;

(iii) the name and quantity of precursor chemicals listed in Schedules 1, 2, Part A or 3 used for production of chemicals in Schedule 1;

(iv) the quantity consumed at the facility and the purpose of the consumption;

- (v) the quantity transferred to other facilities within the State Party. For each transfer the quantity, recipient and purpose should be included;
 - (vi) the maximum quantity stored at any time during the year;
 - (vii) the quantity stored at the end of the year.
3. Information on any changes at the facility or its relevant part(s) during the year compared to previously submitted detailed technical description of the facility.

(b) Each State Party shall, for each facility, make a detailed annual declaration regarding the projected activities and the anticipated production at the facility for the coming calendar year. The declaration shall be submitted not later than ... before the beginning of that year and shall include:

1. Identification of the facility
2. For each chemical in Schedule 1 the following information:
 - (i) the chemical name, structural formula and Chemical Abstracts Service Registry Number (if assigned);
 - (ii) the quantity anticipated to be produced, the time period(s) when the production is anticipated to take place and the purposes of the production.
3. Information on any anticipated changes at the facility or its relevant part(s), during the year compared to previously submitted detailed technical descriptions of the facility.

II. Verification

1. The aim of verification activities at the facility shall be to verify that:
 - (i) the facility is not used to produce any chemical listed in Schedule 1, except for the declared chemical;
 - (ii) the quantities of the chemical listed in Schedule 1 produced, processed or consumed are correctly declared and consistent with needs for the declared purpose;
 - (iii) the chemical listed in Schedule 1 is not diverted or used for other purposes.

2. The facility shall be subject to systematic international on-site verification through on-site inspection and monitoring with on-site instruments.

3. The number, intensity, duration, timing and mode of inspections for a particular facility shall be based on the risk to the objectives of the Convention posed by the quantities of chemicals produced, the characteristics of the facility and the nature of the activities carried out there. The guidelines to be used shall include: (to be developed).

4. Each facility shall receive an initial inspection from inspectors promptly after the facility is declared. The purpose of the initial inspection shall be to verify information provided concerning the facility, and to obtain any additional information needed for planning future verification activities at the facility, including inspections and use of on-site instruments.

5. Within [3] [6] [12] 1/ 2/ months after the entry into force of the Convention each State Party possessing such (a) facility (facilities) shall conclude (an) agreement(s), 3/ based on a model for an agreement, with the Organization, covering detailed inspection procedures for the facility (facilities). 4/

Each State Party planning to establish such a facility after the entry into force of the Convention shall conclude an agreement with the Organization before the facility begins operation or is used.

Each agreement shall include: (to be developed).

1/ The view was expressed that the time periods for conclusion of arrangements for different types of facility subject to inspection under the Convention should be rationalized.

2/ A view was expressed that in light of the need for provisional inspection procedures, pending conclusion of the agreement, 12 months is an undue length of time.

3/ The view was expressed that negotiations on this agreement should commence immediately after the signing of the Convention.

4/ The view was expressed that pending conclusion of the agreement between a State Party and the Organization there would be a need for provisional inspection procedures to be formulated.

ANNEX 2 TO ARTICLE VI

Régime 1/ for Chemicals on Schedule 2 Parts A and B

DECLARATIONS

The Initial and Annual Declarations to be provided by a State Party under paragraphs 3 and 4 of Article VI shall include:

1. Aggregate national data on the production, processing and consumption of each chemical listed in Schedule 2, and on the export and import of the chemicals in the previous calendar 2/ year with a specification of the countries involved. 3/

2. The following information for each facility which, during any of the previous three calendar years, produced, processed or consumed more than 1 tonne 4/ 5/ of chemicals listed in Schedule 2 Part A or which produced at any time [since 1 January 1946] [during the 15 years prior to the entry into force of the Convention] a chemical in Schedule 2 for chemical weapons purposes: 6/

[The following information for each facility which, during the previous calendar year, produced, processed or consumed more than [10] [100] [1,000] kg of the chemicals listed in Schedule 2 Part B.]

1/ The thresholds for Schedule 2 B need further consideration.

2/ The question whether the "calendar year" is the most appropriate "year" needs further consideration. It was noted, however, that for cross-reference purposes, it would be advisable that all States Parties would use the same "year".

3/ Trading companies need further consideration.

4/ One delegation expressed the preference that the thresholds for declaration and verification should be based on production capacity.

5/ The issue of the threshold of 1 tonne, in particular with regard to its application to a 3-year reference period, required further consideration.

6/ Further discussion is needed on the type of verification which would be required for facilities which have been producing for chemical weapons purposes but no longer produce chemicals on Schedule 2 A. It is suggested that the verification of the declaration with respect to such facilities would be achieved by an initial inspection. If it is then found that the relevant production equipment has been removed or destroyed, no further routine inspections would take place. Otherwise a routine inspection régime would be established. It has been suggested by some delegations to remove the reference to those facilities to the Annex to Article V, while other delegations prefer to keep the text in the relevant Annex to Article VI.

Chemical(s)

- (i) The chemical name, common or trade name used by the facility, structural formula, and Chemical Abstracts Service Registry Number (if assigned).
- (ii) The total amount produced, consumed, imported and exported in the previous calendar year or, in the case of the initial declaration, in each of the three previous calendar years. 1/
- (iii) The purpose(s) for which the chemical(s) are produced, consumed or processed:
 - (a) conversion on-site (specify product type);
 - (b) sale or transfer to other domestic industry (specify final product type);
 - (c) export (specify which country);
 - (d) other.

Facility 2/

- (i) The name of the facility and of the owner, company, or enterprise operating the facility.
- (ii) The exact location of the facility (including the address, location of the complex, location of the facility within the complex including the specific building and structure number, if any).
- (iii) Whether the facility is dedicated to producing or processing the listed chemical or is multi-purpose.
- (iv) The main orientation (purpose) of the facility.
- (v) Whether the facility can readily be used to produce a Schedule 1 chemical or another Schedule 2 chemical. Relevant information should be provided, when applicable.
- (vi) The production capacity for the declared Schedule 2 chemical(s).

1/ Whether the total amount is to be expressed as an exact figure or within a range is to be discussed.

2/ The view was expressed that a definition of a chemical production facility was needed and thus should be elaborated.

(vii) Which of the following activities are performed with regard to the Schedule 2 chemicals:

- (a) production;
- (b) processing with conversion into another chemical;
- (c) processing without chemical conversion;
- (d) other - specify.

Advance notifications

3. (a) Each State Party shall annually notify the Technical Secretariat of facilities which intend, during the coming calendar year, to produce, process or consume more than ... of any chemical listed in Schedule 2. The notification shall be submitted not later than ... months before the beginning of that year and shall for each facility include the following information:

- (i) The information specified under paragraph 2 above, except for quantitative information relating to the previous calendar year;
- (ii) For each chemical listed in Schedule 2 intended to be produced or processed, the total quantity intended to be produced or processed during the coming calendar year and the time period(s) when the production or processing is anticipated to take place.

(b) Each State Party shall notify the Technical Secretariat of any production, processing or consumption planned after the submission of the annual notification under paragraph 3 (a), not later than one month before the production or processing is anticipated to begin. The notification shall for each facility include the information specified under paragraph 3 (a).

Verification 1/

Aim

4. The aim of the measures stipulated in Article VI, paragraph 6 shall be to verify that:

- (i) Facilities declared under this Annex are not used to produce any chemical listed in Schedule 1. 2/

1/ Some of the provisions contained in this section have general application throughout the Convention. It is understood that the retention of these will be reviewed at a later stage in the negotiations.

2/ It was suggested that "or for any other purposes prohibited by the Convention" should be added.

- (ii) The quantities of chemicals listed in Schedule 2 produced, processed or consumed are consistent with needs for purposes not prohibited by the Chemical Weapons Convention. 1/
- (iii) The chemicals listed in Schedule 2 are not diverted or used for purposes prohibited by the Chemical Weapons Convention.

Obligation and Frequency

5. (i) Each facility notified to the Technical Secretariat under this Annex which during the previous 3 calendar years produced, processed or consumed more than 10 tonnes of chemicals listed in Schedule 2 Part A over a period of 12 months, shall be subject to systematic international on-site verification on a routine basis. The same applies to any facility which intends to produce, process or consume more than 10 tonnes of such chemicals during a period of 12 months.
- (ii) The number, intensity, duration, timing and mode of inspections and monitoring with on-site instruments for a particular facility shall be based on the risk to the objectives of the Convention posed by the relevant chemical, the characteristics of the facility and the nature of the activities carried out there. 2/ 3/ The guidelines to be used shall include: (to be developed). 4/

Selection

6. The particular facility to be inspected shall be chosen by the Technical Secretariat in such a way to preclude the prediction of precisely when the facility is to be inspected.

1/ Opinions were expressed on the need to consider the question of the existence in a facility of excessive capacity for the production of chemicals in Schedule 2.

2/ One delegation suggested that the number of such inspections could be from one to five per year.

3/ A number of possible factors that could influence the number, intensity, duration, timing and mode of inspections have been identified and discussed. The result of this work is enclosed in Appendix II to serve as a basis for future work.

4/ It was noted that a "weighted approach" might be taken in determining the inspection régime for specific chemicals. The importance of establishing a threshold(s) in this context was also noted. It was mentioned that a threshold(s) should relate to "militarily significant quantities" of the relevant chemical(s).

Notification

7. A State Party shall be notified by the (Director-General of the) Technical Secretariat of the decision to inspect a facility referred to in paragraphs 2 and 3 ... hours prior to the arrival of the inspection team.

Inspected State Party

8. The inspected State Party shall have the right to designate personnel to accompany an inspection team. The exercise of this right shall not affect the right of Inspectors to obtain access to the facility, as provided by the Convention, nor shall it delay or otherwise impede the carrying out of the inspection.

Initial Inspection

9. Each facility notified to the Technical Secretariat under this Annex shall be liable to receive an initial visit from Inspectors, promptly after the State becomes a Party to the Convention.

10. The purpose of the initial inspection shall be to verify information provided concerning the facility to be inspected and to obtain any additional information needed for planning future verification activities at the facility, including inspections and use of on-site instruments.

Agreement on Inspection Procedures

11. Each State Party shall execute an agreement, based on a model agreement, with the Organization, within [6] months after the Convention enters into force for the State Party, governing the conduct of the inspections of the facilities declared by the State Party. The agreement shall provide for the detailed subsidiary arrangements which shall govern inspections at each facility. 1/

12. Such agreements shall be based on a Model Agreement and shall specify for each facility the number, intensity, duration of inspections, detailed inspection procedures and the installation, operation and maintenance of on-site instruments by the Technical Secretariat. The Model Agreement shall include provisions to take into account future technological developments.

States Parties shall ensure that the systematic international on-site verification can be accomplished by the Technical Secretariat at all facilities within the agreed time frames after the Convention enters into force. 2/

1/ Several delegations considered that the model agreement should be elaborated as part of the negotiations on the Convention. A draft for such a model agreement is contained in Appendix II.

2/ Procedures to ensure the implementation of the verification scheme within designated time frames are to be developed.

Verification Inspections

13. The areas of a facility to be inspected under subsidiary arrangements may, inter alia, include: 1/

- (i) areas where feed chemicals (reactants) are delivered and/or stored;
- (ii) areas where manipulative processes are performed upon the reactants prior to addition to the reaction vessel;
- (iii) feed lines as appropriate from subparagraph (i) and/or subparagraph (ii) to the reaction vessel, together with any associated valves, flow meters, etc.;
- (iv) the external aspect of the reaction vessel and its ancillary equipment;
- (v) lines from the reaction vessel leading to long- or short-term storage or for further processing of the designated chemical;
- (vi) control equipment associated with any of the items under subparagraphs (i) to (v);
- (vii) equipment and areas for waste and effluent handling;
- (viii) equipment and areas for disposition of off-specification chemicals.

14. (a) The (Director-General of the) Technical Secretariat shall notify the State Party of its decision to inspect or visit the facility [48] [12] hours prior to the planned arrival of the inspection team at the facility for systematic inspections or visits. In the event of inspections or visits to resolve urgent problems, this period may be shortened. The (Director-General of the) Technical Secretariat shall specify the purpose(s) of the inspection or visit.

(b) A State Party shall make any necessary preparations for the arrival of the Inspectors and shall ensure their expeditious transportation from their point of entry on the territory of the State Party to the facility. The agreement on subsidiary arrangements will specify administrative arrangements for Inspectors.

1/ Opinions were expressed on the need to consider the question of the existence in a facility of excessive capacity for the production of chemicals on Schedule 2.

(c) Inspectors shall, in accordance with agreements on subsidiary arrangements:

- have unimpeded access to all areas that have been agreed for inspection. While conducting their activity, Inspectors shall comply with the safety regulations at the facility. The items to be inspected will be chosen by the Inspectors;
- bring with them and use such agreed instruments as may be necessary for the completion of their tasks;
- receive samples taken at their request at the facility. Such samples will be taken by representatives of the State Party in the presence of the Inspectors;
- perform on-site analysis of samples;
- transfer, if necessary, samples for analysis off-site at a laboratory designated by the Organization 1/ in accordance with agreed procedures; 2/
- afford the opportunity to the inspected State Party to be present when samples are analysed; 2/
- ensure, in accordance with procedures (to be developed), that samples transported, stored and processed are not tampered with; 2/
- communicate freely with the Technical Secretariat.

(d) The State Party receiving the inspection shall, in accordance with agreed procedures:

- have the right to accompany the Inspectors at all times during the inspection and observe all their verification activities at the facility;
- have the right to retain duplicates of all samples taken and be present when samples are analysed;
- have the right to inspect any instrument used or installed by the Inspectors and to have it tested in the presence of its personnel;

1/ The designation of the organ of the Organization that will be entrusted with this task will be considered further and specified in the text.

2/ The view was expressed that all questions related to analysis off-site required further discussion.

- provide assistance to the Inspectors, upon their request, for the installation of the monitoring system and the analysis of samples on-site;
- receive copies of the reports on inspections of its facility(ies);
- receive copies, at its request, of the information and data gathered about its facility(ies) by the Technical Secretariat.

15. The Technical Secretariat may retain at each site a sealed container for photographs, plans and other information that it may wish to refer to in the course of subsequent inspection.

Submission of Inspectors' Report

16. After each inspection or visit to the facility, Inspectors shall submit a report with their findings to the (Director-General of the) Technical Secretariat which will transmit a copy of this report to the State Party having received the inspection or visit.

17. The Inspectors may request clarification of any ambiguities arising from the inspection. In the event that any ambiguities arise which cannot be resolved in the course of the inspection, the Inspectors shall inform the (Director-General of the) Technical Secretariat immediately.

ANNEX 3 TO ARTICLE VI

Régime for Chemicals on Schedule 3

DECLARATIONS

1. The Initial and Annual Declarations to be provided by a State Party under paragraph 4 of Article VI shall include the following information for each of the chemicals listed in Schedule 3:

- (i) The chemical name, common or trade name used by the facility, structural formula and Chemical Abstracts Service Registry Number.
- (ii) The total amount produced, processed, consumed, imported and exported in the previous calendar year, whenever such an amount is above 30 tonnes. ^{1/}
- (iii) The final product or end use of the chemical in accordance with the following categories (to be developed).
- (iv) For each facility which during the previous calendar year produced, processed, consumed or transferred more than 30 tonnes of a chemical listed in Schedule 3 or which produced ^{2/} at any time [since 1 January 1946] [during the [15] years prior to the entry into force of the Convention] a chemical in Schedule 3 for chemical weapons purposes: ^{3/}
 - (a) The name of the facility and of the owner, company, or enterprise operating the facility.
 - (b) The location of the facility.

^{1/} A view was expressed that the amount of 30 tonnes would be subject to change in case changes are made in Schedule 3.

^{2/} A view was expressed that the question of a quantitative threshold would need to be discussed in this context.

^{3/} It has been suggested by some delegations to remove the reference to those facilities to the Annex to Article V, while other delegations prefer to keep the text in the relevant Annex to Article VI.

(c) The Production Capacity of the facility.

["(d) The approximate amount of production, processing and consumption of the chemical in the previous calendar year, expressed in the ranges: up to 100 tonnes, 100-1,000 tonnes, 1,000-10,000 tonnes, and above 10,000 tonnes specified to the nearest 10,000 tonnes.]

2. A State Party shall notify the Technical Secretariat of the name and location of any facility which intends, in the calendar year following submission of the Annual Declaration, to produce, process or consume any of the chemicals listed in Schedule 3 above [10] [30] tonnes."

VERIFICATION

The verification régime for chemicals listed in Schedule 3 will comprise both the provision of data by a State Party to the Technical Secretariat and the monitoring of that data by the Technical Secretariat. 1/

1/ Some delegations consider that provision should be made for resort to an on-site "spot-check" inspection, if required, to verify information supplied by a State Party. Other delegations believe that the provisions of Articles VII, VIII and IX of the Convention are sufficient in this respect.

1. The Preparatory Commission shall be established by the United Nations General Assembly at its first session. The Commission shall be composed of representatives of the States Parties to the Convention and shall be authorized to meet at such times and places as it may deem appropriate. The Commission shall have the honor of the Secretary-General of the United Nations.

OTHER DOCUMENTS

2. All decisions of the Preparatory Commission shall be taken by a majority of two-thirds of the members of the Commission. If the Commission is unable to reach a decision by a majority of two-thirds on any matter, it may, by a simple majority, refer the matter to a special committee of its members, which shall report to the Commission at the end of the period. If consensus is not possible at the end of the period, the Commission shall decide on the matter by a simple majority of the members present and voting. Decisions on procedural matters shall be decided by a simple majority of the members present and voting. When the issue arises as to whether the question before the Commission is a procedural one, the Commission shall decide on the matter by a simple majority of the members present and voting.

3. The Commission shall submit a report to the United Nations General Assembly at its second session. The report shall contain the Commission's recommendations on the Convention and on the draft Convention. The Commission shall also submit a report on its work to the Secretary-General of the United Nations. The Commission shall be authorized to request the Secretary-General to provide it with such information and assistance as it may require.

Preparatory Commission 1/

1. For the purpose of carrying out the necessary preparations for the effective operation of the provisions of the Convention and for preparing for the first session of the Conference of the States Parties, the Depositary of the Convention shall convene a Preparatory Commission not later than [30] days after the Convention has been signed by (to be determined) States.
2. The Preparatory Commission shall be composed of all States which sign the Convention before its entry into force. Each signatory State shall have one representative in the Preparatory Commission, who may be accompanied by alternates and advisers.
3. The Commission shall be convened at [...] and remain in existence until the first session of the Conference of the States Parties has convened.
4. The expenses of the Commission shall be met by the States signatories to the Convention, participating in the Commission, [in accordance with the United Nations scale of assessment, adjusted to take into account differences between the United Nations membership and the participation of States signatories in the Commission].
5. All decisions of the Preparatory Commission should be taken by consensus. If notwithstanding the efforts of representatives to achieve consensus, an issue comes up for voting, the Chairman of the Preparatory Commission shall defer the vote for 24 hours and during this period of deferment shall make every effort to facilitate achievement of consensus, and shall report to the Commission prior to the end of the period. If consensus is not possible at the end of 24 hours, the Commission shall take decisions on questions of procedure by a simple majority of the members present and voting. Decisions on questions of substance shall be taken by two-thirds majority of the members present and voting. When the issue arises as to whether the question is one of substance or not, that question shall be treated as one of substance unless otherwise decided by the Preparatory Commission by the majority required for decisions on questions of substance. 2/

1/ Provisions on the Commission could be contained in a resolution of the United Nations General Assembly commending the Convention or in an appropriate document associated with the Convention.

2/ It has also been proposed that decisions should be taken by consensus only.

6. The Commission shall:

(a) elect its own officers, adopt its own rules of procedures, determine its place of meeting, meet as often as necessary and establish such committees as it deems useful;

(b) appoint an executive secretary and staff to exercise such functions as the Commission may determine with a view to establishing a provisional Technical Secretariat with units in charge of preparatory work concerning the main activities to be carried out by the Technical Secretariat to be established by the Convention;

(c) make arrangements for the first session of the Conference of the States Parties, including the preparation of a draft agenda and draft rules of procedure;

(d) undertake, inter alia, the following tasks on subjects requiring immediate attention after the entry into force of the Convention:

- (i) the detailed staffing pattern of the Technical Secretariat, including decision-making flow charts;
- (ii) assessments of personnel requirements;
- (iii) staff rules for recruitment and service conditions;
- (iv) recruitment and training of technical personnel;
- (v) standardization and purchase of equipment;
- (vi) organization of office and administrative services;
- (vii) recruitment and training of support staff;
- (viii) establishment of the scale of financial contribution for the Organization; ^{1/}
- (ix) establishment of administrative and financial regulations;
- (x) preparation of host country agreement;
- (xi) preparation of guidelines for initial visits and facility attachments;

^{1/} The view was expressed that the entire problem of the costs of the Organization needs to be considered.

- (xii) preparation of programme of work and budget of the first year of activities of the Organization;
- (xiii) preparation of such studies, reports and recommendations as it deems necessary.

7. The Commission shall prepare a final report on all matters within its mandate for the first session of the Conference of the States Parties and the first meeting of the Executive Council.

8. At the first session of the Conference of the States Parties, the property and records of the Preparatory Commission shall be transferred to the Organization.

ADDENDUM TO APPENDIX I
PROTOCOL ON INSPECTION PROCEDURES 1/

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1/ The texts contained in this document require further consideration and elaboration including the level of detail required in this Protocol as well as the overlap between detail in the Annexes and in this Protocol. Some delegations held that many of the details should not be included in the Protocol and that they should rather be the subject of an Inspectors' manual to be issued by the Technical Secretariat. Also the status of this Protocol and the question of amendment procedures to be applied to the provisions contained in the Protocol require further discussion.

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PART I: GENERAL

I. Definitions

"Inspector" means an individual designated by the Director-General of the Technical Secretariat according to the procedures as set forth in part I, Section II of this Protocol to carry out an inspection in accordance with the Convention, its annexes, and facility agreements between States Parties and the Organization of the Convention.

"Inspection assistant" means an individual designated by the Director-General of the Technical Secretariat according to the procedures as set forth in part I, Section II of this Protocol to assist inspectors in an inspection (e.g. medical, security, administration, interpreters).

"Inspection Team" means the group of inspectors and inspection assistants assigned by the Director-General of the Technical Secretariat to conduct a particular inspection.

"Inspected State Party" means the State Party to the Convention on whose territory an inspection pursuant to the Convention, its annexes and facility agreements between Parties and the Organization of the Convention takes place, or the State Party to the Convention whose facility on the territory of a host State is subject to such an inspection.

"Inspection Site" means any area or facility at which the inspection is carried out and which is specifically defined in the respective facility agreement or inspection mandate or request.

"Period of Inspection" means the period of time from arrival of the inspection team at the inspection site until its departure from the inspection site, exclusive of time spent on briefings before and after the verification activities.

"Point of Entry" means the location(s) designated for the in-country arrival of inspection teams for inspections pursuant to the Convention and for their departure after completion of their mission.

"In-Country Period" means the period from the arrival of the inspection team at a point of entry until its departure from the State at a point of entry.

"Host State" means that State on whose territory lie States Parties' facilities subject to inspection under the Convention.

"In-Country Escort" means individuals specified by the inspected State Party and, if appropriate, by the Host State, if they so wish to accompany and assist the inspection team during the in-country period.

"Routine Inspections" means the systematic, on-site inspection [, subsequent to initial inspections,] of facilities declared pursuant to Articles IV, V, VI and the Annexes to those Articles.

"Initial inspection" means the first on-site inspection of facilities to verify data declared pursuant to Articles IV, V, VI and the Annexes to those Articles.

"Challenge Inspection" means the inspection of a State Party requested by another State Party pursuant to Article IX, part II.

"Requesting State Party" means a State Party which has requested a challenge inspection pursuant to Article IX.

"Observer" means a representative of a requesting State Party designated by that State Party to observe a challenge inspection.

"Approved Equipment" means the devices and/or instruments necessary for the performance of the inspection team's duties that have been certified by the Technical Secretariat in accordance with agreed procedures. Such equipment may also refer to the administrative supplies or recording materials that would be used by the inspection team.

"Facility Agreement" means an agreement between a State Party and the Organization relating to a specific facility subject to routine inspection.

"Inspection Mandate" means the instructions issued by the Director-General of the Technical Secretariat to the inspection team for the conduct of a particular inspection.

II. Designation of inspectors and inspection assistants

1. Not later than ... days after entry into force of the Convention the Technical Secretariat shall communicate, in writing, to all States Parties the names, nationality and ranks of the Inspectors and inspection assistants proposed for designation. 1/ Furthermore, it shall furnish a description of their qualifications and professional experience.

1/ It has been suggested that, in order to facilitate early implementation of the verification activities, States might, upon signature or thereafter before the entry into force, make declarations concerning the number and types of facilities which shall be subject to verification. The Preparatory Commission, on the basis of these declarations, might initiate the designation and clearance process.

2. Each State Party shall immediately acknowledge receipt of the list of Inspectors and inspection assistants, proposed for designation communicated to it. Any Inspector and inspection assistant included in this list shall be regarded as designated unless a State Party, within [30] days ^{1/} after acknowledgement of receipt of the list declares its non-acceptance.

In the case of non-acceptance, the proposed Inspector or inspection assistant shall not undertake or participate in verification activities within the State Party which has declared his non-acceptance. The Director-General shall, as necessary, submit further proposals in addition to the original list.

3. Verification activities under the Convention shall only be performed by designated Inspectors and inspection assistants.

4. Subject to the provisions of paragraph 5 below a State Party has the right at any time, to object to an Inspector or inspection assistant who may have been already designated in accordance with the procedures in paragraph 1 above.

It shall notify the Technical Secretariat of its objections [and include the reason for the objection.] Such objections shall come into effect 30 days after receipt by the Technical Secretariat. The Technical Secretariat shall immediately inform the State Party concerned of the withdrawal of the designation of the Inspector or inspection assistant.

5. A State Party that has been notified of an inspection shall not seek to have removed from the inspection team for that inspection any of the designated inspectors or inspection assistants named in the inspection team list. ^{2/}

6. The number of Inspectors and inspection assistants accepted by and designated to a State Party must be sufficient to allow for availability and rotation of appropriate numbers of Inspectors and inspection assistants.

7. If, in the opinion of the Director-General the non-acceptance of proposed Inspectors or inspection assistants impedes the designation of a sufficient number of Inspectors or inspection assistants or otherwise hampers the effective fulfilment of the task of the Inspectorate, the Director-General shall refer the issue to the Executive Council.

^{1/} The time period should not be longer than 30 days. Otherwise the obligation to make declarations within 30 days after entry into force and immediately thereafter provide access for inspection cannot be met.

^{2/} A view was expressed that new information on the bona fides of designated inspectors could be a reason for objecting to their being included in the inspection team.

8. Whenever amendments to the above-mentioned lists of Inspectors and inspection assistants are necessary or requested, replacement Inspectors and inspection assistants shall be designated in the same manner as set forth with respect of the initial list.

9. The members of the inspection team carrying out an inspection of a facility of a State Party located in the territory of another State Party shall be designated in accordance with the procedures set out in this Protocol both to the inspected State Party and the host State.

III. Privileges and immunities 1/

1. Each State party shall, within [30] days 2/ after acknowledgement of receipt of the list of Inspectors and inspection assistants or of changes thereto and for the purpose of carrying out inspection activities, provide for multiple entry/exit and/or transit visas and other such documents which each Inspector or inspection assistant may need to enter and to remain on the territory of that State Party. These documents shall be valid for at least 24 months from the date of their provision to the Technical Secretariat.

2. To exercise their functions effectively, Inspectors and inspection assistants shall be accorded privileges and immunities as set forth in paragraph (i) through (ix). Privileges and immunities shall be granted to members of the inspection team for the sake of the Convention and not for the personal benefit of the individuals themselves. Privileges and immunities shall be accorded for the period of transit through non-inspected States Parties, for the entire in-country period, and thereafter with respect to acts previously performed in the exercise of official functions as Inspector or inspection assistant. 3/

- (i) The members of the inspection team shall be accorded the inviolability enjoyed by diplomatic agents pursuant to Article 29 of the Vienna Convention on Diplomatic Relations of 18 April 1961.

1/ Some delegations expressed the view that this section required further consideration. A view was expressed that Article VI ("Experts on mission for the United Nations") of the Convention on the Privileges and Immunities of the United Nations should be taken into account in this later consideration.

2/ The time period should not be longer than 30 days. Otherwise the obligation to make declarations within 30 days after entry into force and immediately thereafter provide access for inspection cannot be met.

3/ The rights and privileges of the Inspectors and inspection assistants during transportation over and through non-States Parties needs further consideration.

- (ii) The living quarters and office premises occupied by the inspection team carrying out inspection activities pursuant to the Convention shall be accorded the inviolability and protection accorded the premises of diplomatic agents pursuant to Article 30 of the Vienna Convention on Diplomatic Relations.
- (iii) The records of the inspection team shall enjoy the inviolability accorded to all papers and correspondence of diplomatic agents pursuant to Article 30 of the Vienna Convention on Diplomatic Relations. The inspection team shall have the right to use codes for their communications with the Technical Secretariat.
- (iv) Samples and approved equipment carried by members of the inspection team shall be inviolable subject to provisions contained in the Convention and exempt from all customs duties. Hazardous samples shall be transported in accordance with relevant transport regulations.
- (v) The members of the inspection team shall be accorded the immunities accorded diplomatic agents pursuant to paragraphs 1, 2 and 3 of Article 31 of the Vienna Convention on Diplomatic Relations.
- (vi) The members of the inspection team carrying out their prescribed activities pursuant to the Convention shall be accorded the exemption from dues and taxes accorded to diplomatic agents pursuant to Article 34 of the Vienna Convention on Diplomatic Relations.
- (vii) The members of the inspection team shall be permitted to bring into the territory of the inspected State Party or host State, without payment of any customs duties or related charges, articles for personal use, with the exception of articles the import or export of which is prohibited by law or controlled by quarantine regulations.
- (viii) The members of the inspection team shall be accorded the same currency and exchange facilities as are accorded to representatives of foreign Governments on temporary official missions.
- (ix) The members of the inspection team shall not engage in any professional or commercial activity for personal profit on the territory of the inspected State Party or that of the host State.

3. Without prejudice to their privileges and immunities the members of the inspection team shall be obliged to respect the laws and regulations of the inspected State Party or host State and, to the extent that is consistent with the inspection mandate, shall be obliged not to interfere in the internal affairs of that State.

If the inspected party or host State Party considers that there has been an abuse of privileges and immunities specified in this Protocol, consultations shall be held between the Party and the Director-General of the Technical Secretariat to determine whether such an abuse has occurred and, if so determined, to prevent a repetition of such an abuse.

The immunity from jurisdiction of members of the inspection team may be waived by the Director-General of the Technical Secretariat in those cases when it is of the opinion that immunity would impede the course of justice and that it can be waived without prejudice to the implementation of the provisions of the Convention. Waiver must always be express.

[4. If at any time, a member of the inspection team is on the territory of the inspected State Party or host State and is suspected or accused of violating a law or regulation, consultations shall be held between the State concerned and the inspection team chief to determine whether such an abuse has occurred, and if so determined, to prevent a repetition of such an abuse. If requested by the inspected State Party or host State, the Director-General of the Technical Secretariat shall remove that individual from the country. If the inspection team chief is the individual suspected or accused, the inspected State Party shall have the right to communicate with the Director-General of the Technical Secretariat and request their removal and replacement. The deputy team chief shall assume the duty of team chief until the Technical Secretariat has acted on the inspected State Party's request.]

[5. If the inspected State Party so decides, Inspectors and inspection assistants monitoring destruction of chemical weapons during the active phase of destruction pursuant to article IV and its annex shall only be allowed to travel 1/ up to (...) kilometres from the inspection site with the permission of the in-country escort, and as considered necessary by the inspected State Party shall be accompanied by the in-country escort. Such travel shall be taken solely as leisure activity. 2/]

1/ It is understood that "travel" does not imply the right of access to areas restricted for security reasons or to private property.

2/ Further study on the rights of members of an inspection team to communicate with the embassy of their respective nationality is necessary.

IV. Standing arrangements

A. Points of entry

1. Each State Party shall designate the points of entry and shall supply the required information to the Technical Secretariat not later than 30 days after the Convention enters into force. 1/ These points of entry shall be such that the inspection team can reach any inspection site from at least one point of entry within [12] hours. Locations of points of entry shall be provided to all States Parties by the Technical Secretariat.
2. Each State Party may change the points of entry by giving notice of such change to the Technical Secretariat. Changes shall become effective ... days after the Technical Secretariat receives such notification to allow appropriate notification to all States Parties.
3. If the Technical Secretariat considers that there are insufficient points of entry for the timely conduct of inspections or that changes to the points of entry proposed by a State Party would hamper such timely conduct of inspections, it shall enter into consultations with the State Party concerned to resolve the problem.
4. In cases where facilities of an inspected State Party are located in the territory of another State Party or where the access from the point of entry to the facilities subject to inspection requires transit through the territory of another State, inspections shall be carried out in accordance with this Protocol.

States Parties on whose territory facilities of other States Parties subject to inspection are located shall facilitate the inspection of those facilities and shall provide for the necessary support to enable the inspection team to carry out its tasks in a timely and effective manner.

5. In cases where facilities of an inspected State Party are located in the territory of a non-State Party the State Party subject to inspection shall ensure that inspections of those facilities can be carried out in accordance with the provisions of this Protocol. A State Party that has one or more facilities on the territory of a non-State Party shall ensure acceptance by the host State of inspectors and inspection assistants designated to that State Party.

1/ In order to ensure that the process of designation of Inspectors and inspection assistants, as well as of points of entry (and departure) function smoothly as from the date of entry into force of the Convention, the idea of the signatories indicating advance acceptance on the basis of a preliminary list drawn up by the Preparatory Commission should be considered.

B. Arrangements for use of unscheduled aircraft

1. For inspections pursuant to Article IX and for other inspections where timely travel is not feasible using scheduled commercial transport, an inspection team may need to utilize aircraft owned or chartered by the Technical Secretariat. Within 30 days after entry into force of the Convention, each State Party shall inform the Technical Secretariat of the standing diplomatic clearance number for non-scheduled aircraft transporting inspection teams and equipment necessary for inspection into and out of the territory in which an inspection site is located. Aircraft routings to and from the designated point of entry shall be along established international airways that are agreed upon between the States Parties and the Technical Secretariat as the basis for such diplomatic clearance.

2. When a non-scheduled aircraft is used, the Technical Secretariat shall provide the inspected State Party with a flight plan, through the National Authority, for the aircraft's flight from the last airfield prior to entering the airspace of the State in which the inspection site is located to the point of entry, no less than [6] hours before the scheduled departure time from that airfield. Such a plan shall be filed in accordance with the procedures of the International Civil Aviation Organization applicable to civil aircraft. For its owned or chartered flights, the Technical Secretariat shall include in the remarks section of each flight plan the standing diplomatic clearance number and the notation: "Inspection aircraft. Priority clearance processing required."

3. No less than [3] hours prior to the scheduled departure of the inspection team from the last airfield prior to entering the airspace of the country in which the inspection is to take place, the inspected State Party [or host State Party] shall ensure that the flight plan filed in accordance with paragraph 2 of this section is approved so that the inspection team may arrive at the point of entry by the estimated arrival time.

4. The inspected State Party shall provide parking, security protection, servicing and fuel as required for the aircraft of the inspection team at the point of entry when such aircraft is owned or under charter to the Technical Secretariat. Such aircraft shall not be liable for landing fees, departure tax, and similar charges. The Technical Secretariat shall bear the cost of such fuel, [security] and servicing. 1/

C. Administrative arrangements

The inspected State Party shall provide or arrange for the amenities necessary for the inspection team such as communication means, interpretation services to the extent necessary for the performance of interviewing and other

1/ The Technical Secretariat will need to negotiate arrangements for costs of such services.

tasks, transportation, working space, lodging, meals and medical care of the inspection team. In this regard, the inspected State Party shall be reimbursed by the Organization for such costs incurred by the inspection team (details to be developed).

D. Approved equipment

1. Subject to paragraph 3 of this section there shall be no restriction by the inspected State Party on the inspection team bringing on to the inspection site such approved equipment which the Technical Secretariat [and the States Parties] [has] [have] determined to be necessary to fulfil the inspection requirements. 1/

[This includes, inter alia, equipment for discovering and preserving evidence related to the compliance with the Convention, temporary and permanent monitoring equipment and seals for emplacement, equipment for discovering and preserving information, equipment for recording and documenting the inspection, as well as for communication 2/ with the Technical Secretariat and for determining that the inspection team has been brought to the site for which the inspection has been requested.] The Technical Secretariat shall to the extent possible prepare and, as appropriate, update a list of approved equipment, which may be needed for the purposes described above, and regulations governing such equipment which shall be in accordance with this Protocol. In establishing the list of approved equipment and these regulations, the Technical Secretariat should ensure that safety considerations for all the types of facilities at which such equipment is likely to be used, are taken fully into account. 3/ 4/

2. The equipment shall be in the custody of the Technical Secretariat and be designated, calibrated and approved by the Technical Secretariat. The Technical Secretariat shall, to the extent possible, select that equipment

1/ A view was expressed that further consideration should be given to the conclusion of bilateral agreements between the Technical Secretariat and the States Parties on the instruments and devices to be used in the inspections in order to guarantee that they are reliable and applicable.

2/ The issue of communications requires further consideration.

3/ Further consideration needs to be given to when and how such equipment will be agreed and to what extent it will need to be specified in the Convention.

4/ The relationship between equipment for routine inspections and challenge inspections and provisions for their respective uses will need to be considered.

which is specifically designed for the specific kind of inspection required. Designated and approved equipment shall be specifically protected against unauthorized alteration. [The Technical Secretariat shall certify that the equipment meets agreed standards.]

3. The inspected State Party shall have the right, without prejudice to the prescribed time-frames to inspect the equipment in the presence of inspection team members at the point of entry, i.e., to check the identity of the equipment brought in or removed from the territory of the inspected State Party or host State. To facilitate such identification, the Technical Secretariat shall attach documents and devices to authenticate its designation and approval of the equipment. The inspection of the equipment shall also ascertain to the satisfaction of the inspected State Party that the equipment meets the description of the approved equipment for the particular type of inspection. The inspected State Party may exclude equipment not meeting that description or equipment without the above-mentioned authentication documents and devices. [Excluded equipment shall be kept at the point of entry until the inspection team leaves the respective State. Storage of the inspection team's equipment and supplies at the point of entry shall be in tamper-indicating containers provided by the inspection team within a secure facility provided by the inspected State Party. Access to each secure facility shall be controlled by a "dual key" system requiring the presence of both the inspected party and representative of the inspection team to gain access to the equipment and supplies. The Technical Secretariat may allow a State Party to maintain equipment storage as described here in lieu of bringing it in for each inspection in accordance with the agreement between the State Party concerned and the Technical Secretariat.]

4. In cases where the inspection team finds it necessary to use equipment available on site not belonging to the Technical Secretariat and requests the inspected State Party to enable the team to use such equipment, the inspected State Party shall comply with the request to the extent it can. 1/

V. PRE-INSPECTION ACTIVITIES

A. Notification

1. The Director-General of the Technical Secretariat shall notify the State Party prior to the planned arrival of the inspection team at the point of entry and within the prescribed timeframes where specified of its intention to carry out an inspection.

1/ A view was expressed that the possibility of agreed procedures should be considered in this regard.

2. Notifications made by the Director-General of the Technical Secretariat shall include the following information:

- the type of inspection;
- the point of entry; ^{1/}
- the date and estimated time of arrival at the point of entry;
- the means of arrival at the point of entry;
- [the site to be inspected];
- the names of Inspectors and inspection assistants;
- if appropriate, aircraft clearance of special flights;
- the names of the observer[s] of the requesting State Party in the case of a challenge inspection.

[The inspection site shall be specified by the chief of the inspection team at the point of entry not later than 24 hours after the arrival of the inspection team.]

3. The inspected State Party shall within [one] hour acknowledge the receipt of a notification by the Technical Secretariat of an intention to conduct an inspection.

4. In the case of an inspection of a facility of a State Party located in the territory of another State Party both States Parties shall be simultaneously notified in accordance with paragraphs 1, 2, 3 of this section.

B. Entry into the territory of the inspected State Party or host State and transfer to the inspection site

1. The State Party [or host State Party] which has been notified of the arrival of an inspection team, shall ensure its immediate entry into the territory and shall through an in-country escort [if such an escort is requested] do everything in its power to ensure the safe conduct of the inspection team and its equipment and supplies, from its point of entry to the inspection site(s) and to its point of exit.

^{1/} A view was expressed that for routine inspections it could be agreed in the facility agreement that notification of the point of entry would not be needed.

2. In accordance with paragraphs 4 and 5 of Section IV A. above, the inspected State Party [or host State Party] shall ensure that the inspection team is able to reach the inspection site within [12] 1/ hours from the arrival at the point of entry or, if appropriate, from the time the inspection site is specified at the point of entry. 2/

C. Pre-inspection briefing

Upon arrival at the inspection site and prior to the commencement of the inspection, the inspection team shall be briefed, with the aid of maps and other documentation as appropriate, by facility representatives on the facility, the activities carried out there, safety measures and administrative and logistic arrangements necessary for the inspection. The time spent for the briefing shall be limited to the minimum necessary and in any event not exceeding three hours.

VI. CONDUCT OF INSPECTIONS

A. General rules

1. The members of the inspection team shall discharge their functions in accordance with the articles and annexes of the Convention, this Protocol as well as rules established by the Director-General of the Technical Secretariat and facility agreements between States Parties and the Organization. 3/ 4/

1/ Further study is required on whether a longer or shorter time period is feasible.

2/ The view was expressed that because the specific point of entry utilized as well as the time of arrival would be selected by the Technical Secretariat and to avoid prematurely revealing the site during some types of inspections the closest point of entry may not be chosen, the inspected State Party could not be held responsible for ensuring that the inspection team reaches the site within a specified time frame, although it should undertake to avoid the use of delaying tactics.

3/ A detailed manual of technical procedures should be prepared for the guidance of teams conducting challenge inspections and for the inspected State Party to know what the rights, obligations and constraints of the inspectors, escorts and inspected State Party are. A view was expressed that the manual should, inter alia, give guidance to the inspection team on the specific types of information a team should seek to establish the facts in particular situations.

4/ A view was expressed that an Inspector or inspection assistant shall be considered to have assumed his inspection duties on departure from his primary work location, on Technical Secretariat arranged transportation, and shall be considered to have ceased performing those duties when he has returned to his primary work location and on termination of Technical Secretariat provided transportation.

2. The inspection team dispatched shall strictly observe the inspection mandate issued by the Director-General of the Technical Secretariat. 1/ It shall refrain from activities going beyond this mandate. 2/ 3/

3. The activities of the inspection team shall be so arranged as to ensure on the one hand the timely and effective discharge of the inspector's functions and, on the other, the least possible inconvenience to the State concerned and disturbance to the facility or other location inspected. The inspection team shall avoid unnecessarily hampering or delaying the operation of a facility and avoid affecting its safety. In particular, the inspection team shall not operate any facility.

If inspectors consider that, to fulfil their mandate, particular operations should be carried out in a facility, they shall request the designated representative of the management of the facility to have them performed. The representative shall carry out the request to the extent possible.

4. In the performance of their duties on the territory of an inspected State Party, the members of the inspection team shall, if the inspected State Party so requests, be accompanied by representatives of this State, but the inspection team must not thereby be delayed or otherwise hindered in the exercise of its functions. 4/

1/ The use of the terms "Technical Secretariat" and "Director-General of the Technical Secretariat" needs to be reviewed throughout the Convention.

2/ A view was expressed that for challenge inspections the inspection mandate would have to be flexible enough for the inspection team to tailor the inspection to the conditions they meet on the site.

3/ The question of what actions shall be taken in case an inspector or an inspection assistant goes beyond the mandate should be further considered.

4/ The right of host State representatives need to be further considered.

5. [At least two Inspectors on each team must speak the language of the Convention which the inspected Party has agreed to work in. 1/ 2/ Each inspection team shall operate under the direction of a team leader and deputy team leader designated by the Director-General of the Technical Secretariat.] Upon arrival at the inspection site, the inspection team may divide itself into subgroups consisting of no fewer than two Inspectors each.

B. Safety

In carrying out their activities, Inspectors and inspection assistants shall observe safety regulations established at the inspection site, 3/ including those for the protection of controlled environments within a facility and for personal safety. Individual protective clothing and approved equipment, duly certified, shall normally be provided by the Technical Secretariat. 4/ 5/

C. Communications

Inspectors shall have the right throughout the in-country period to communications with the Headquarters of the Technical Secretariat. For this purpose they [may use their own, duly certified, approved equipment and/or] may request that the inspected State Party or host State Party provide them with access to other telecommunications. 6/ The inspection team shall have

1/ Consideration should be given to include provision in the Convention for the selection by States Parties of what language of the Convention they will operate in for the conduct of inspections and submission of reports to the Technical Secretariat.

2/ The Technical Secretariat should also make arrangements for interpreters for national languages of States Parties, to the extent possible, to facilitate inspections.

3/ Consideration will need to be given with regard to those areas which for safety reasons preclude or limit the entrance of personnel (e.g. unexploded munitions, hazardous areas of destruction facilities).

4/ Agreements between the Technical Secretariat and States Parties should specify that all protective clothing and equipment meet pre-agreed safety standards or a State Party may require the team to use the clothing and equipment of the Party.

5/ For safety reasons, the inspected State Party should have the right to provide appropriate alternative equipment and protective clothing of its own for the inspection team, provided this does not hinder the conduct of the inspection.

6/ The issue of communications requires further consideration.

the right to use its own 1/ two-way system of radio communications between personnel patrolling the perimeter and other members of the inspection team. [Communication systems should conform to power and frequency instructions established by the Technical Secretariat.]

D. Inspection team and inspected State Party rights

1. The inspection team shall, in accordance with the relevant articles and annexes of this Convention as well as with facility agreements, have the right to unimpeded access to the inspection site. The items to be inspected will be chosen by the inspectors.
2. Inspectors shall have the right to interview any facility personnel in the presence of representatives of the inspected State Party with the purpose of establishing relevant facts. Inspectors shall only request information and data which are necessary to the conduct of the inspection, and the inspected State Party shall furnish such information upon request. The inspected State Party shall have the right to object to questions posed to the facility personnel if those questions are deemed not relevant to the inspection. If the inspection team chief objects and states their relevance, the questions shall be provided in writing to the Inspected Party for reply. The inspection team may note any refusal to permit interviews or to allow questions to be answered and any explanations given, in that part of the Inspection Report that deals with the co-operation of the Inspected State Party.
3. Inspectors shall have the right to inspect documentation and records they deem relevant to the conduct of their mission.
4. Inspectors shall have the right to have photographs taken at their request by representatives of the inspected State Party. The capability to take instant development photographic prints shall be available.

[If requested by the inspection team, such photographs should show the size of an object by placing a measuring scale, provided by the inspection team, alongside that object during the photographing.] The inspection team should determine whether photographs conform to those requested, and if not, repeat photographs should be taken. The inspection team and the inspected State Party should each retain one copy of every photograph.
5. The inspected State Party shall have the right to accompany the inspection team at all times during the inspection and observe all their verification activities.

1/ For safety reasons, the inspected State Party should have the right to provide appropriate alternative equipment and protective clothing of its own for the inspection team, provided this does not hinder the conduct of the inspection.

6. The inspected State Party shall receive copies, at its request, of the information and data gathered about its facility(ies) by the Technical Secretariat.

7. Inspectors shall have the right to request clarifications in connection with ambiguities that arise during an inspection. Such requests shall be made promptly through the representative of the inspected State Party. The representative of the inspected State Party shall provide the inspection team, during the inspection, with such clarifications as may be necessary to remove the ambiguity. In the event questions relating to an object or a building located within the inspection site are not resolved, the object or building shall be photographed for the purpose of clarifying its nature and function. If the ambiguity cannot be removed during the inspection, the Inspectors shall notify the Technical Secretariat immediately. The Inspectors shall include any such unresolved question, relevant clarifications and a copy of any photographs taken in the inspection report.

E. Collection, handling and analysis of samples

1. Except as provided for in parts III and IV of this Protocol representatives of the inspected State Party or of the inspected facility shall take samples at the request of the inspection team in the presence of inspectors. If so agreed in advance with the representatives of the inspected State Party or of the inspected facility the inspection team may take samples themselves.

2. Where possible, the analysis of samples shall be performed on-site. The inspection team shall have the right to perform on-site analysis of sample using approved equipment brought by them. Alternatively they may request that appropriate analysis on-site be performed in their presence.

3. The inspected State Party has the right to retain portions of all samples taken or take duplicate samples and be present when samples are analysed on-site.

4. The inspection team shall, if they deem it necessary, transfer samples for analysis off-site at laboratories designated by the Organization. 1/ 2/ 3/

1/ The designation of the organ of the Organization that will be entrusted with this task will be considered further and specified in the text.

2/ In cases of off-site analysis, the question should be further discussed of documentation that should be provided by the Technical Secretariat to the inspected facilities (inspected State Party) concerning the acknowledgement of receipt of the samples at the designated laboratories, possible transfer as well as final destination (retention, return or destruction) of the unused samples or portions thereof.

3/ Transportation of toxic samples and existing international transportation regulations will need to be addressed.

5. The Director-General of the Technical Secretariat shall have the primary responsibility for the security, integrity and preservation of samples and for ensuring that the confidentiality of samples transferred for analysis off-site is protected. He shall

- (i) establish a stringent régime governing the collection, handling, transport and analysis of samples;
- (ii) certify the laboratories designated to perform different types of analysis;
- (iii) oversee the standardization of equipment and procedures at these designated laboratories and mobile analytical equipment and procedures, and monitor quality control and overall standards in relation to the certification of these laboratories and mobile equipment/procedures; and
- (iv) select from among the designated laboratories those which shall perform analytical or other functions in relation to specific investigations.

6. When off-site analysis is to be performed samples shall be analysed in at least two designated laboratories. The Technical Secretariat shall ensure the expeditious processing of the analysis. The samples shall be accounted for by the Technical Secretariat and any unused samples ^{1/} or portions thereof shall be returned to the Technical Secretariat.

7. The Technical Secretariat shall compile the results of the laboratory analysis of samples and include them in the final inspection report. The Technical Secretariat shall include in the report detailed information concerning the equipment and methodology employed by the designated laboratories.

F. Extension of inspection duration

[Periods of inspection may be extended by agreement with the in-country escort, by no more than (xx hours).] ^{2/}

^{1/} Consideration should be given to the retention of unused samples taken during challenge inspection for which the findings were inconclusive.

^{2/} The view was expressed that, as no fixed period was foreseen for routine inspections, this paragraph might be superfluous. The view was also expressed that for some kinds of routine inspections there cannot be any time-limit without changing the substance of agreed provisions of articles IV and V and their annexes.

G. Debriefing

1. Upon completion of an inspection the inspection team shall meet with representatives of the inspected State Party and the personnel responsible for the inspection site to review the preliminary findings of the inspection team and to clarify any ambiguities. The inspection team shall provide to the representatives of the inspected State Party its preliminary findings in written form according to a standardized format together with a list of any samples and copies of written information and data gathered and other material to be taken off site. 1/ The document shall be signed by the head of the inspection team. In order to indicate that he has taken notice of the contents of the document the representative of the inspected State Party shall countersign the document. This meeting shall be completed within [4] [24] hours of the completion of the inspection.

VII. DEPARTURE

[In the case of inspections conducted pursuant to articles IV, V, VI and IX, upon completion of the post-inspection procedures, the inspection team shall return promptly to the point of entry at which it entered the inspected State and it shall then leave, within 24 hours, the territory of that State.] 2/

VIII. REPORTS

1. Within [10] days after the inspection, Inspectors shall prepare a final report 3/ on the activities conducted by them and on their findings. The report shall be factual in nature. It shall only contain facts relevant to compliance with the Convention, as provided for under the inspection mandate. The report shall also provide information as to the manner in which the State Party inspected co-operated with the inspection team. Differing observations 4/ held by Inspectors may be attached to the report. The report shall be kept confidential.

1/ A view was expressed that for routine inspection the question of off-site transfer of "copies of written information and data gathered and other material" needs further examination, in particular as regards the confidentiality aspect.

2/ The view was expressed that this paragraph could not apply to routine inspections.

3/ Further consideration needs to be given on when and how the receiving State/facility will be able to comment on the contents of the report.

4/ It is understood that it is not up to the inspection team to draw conclusions with regard to compliance of a State Party from the facts established during an inspection.

2. The final report shall immediately be submitted to the inspected State Party. Any written comments, which the inspected State Party may immediately make on its findings shall be annexed to it. The final report together with annexed comments made by the inspected State Party shall be submitted to the Director-General of the Technical Secretariat not later than [30] days after the inspection.

3. Should the report contain uncertainties, or should co-operation between the National Authority and the Inspectors not measure up to the standards required, the Director-General of the Technical Secretariat shall approach the State Party for clarification.

4. If the uncertainties cannot be removed or the facts established are of a nature to suggest that obligations undertaken under the Convention have not been met, the Director-General of the Technical Secretariat shall inform the Executive Council without delay.

PART II: ROUTINE INSPECTIONS PURSUANT TO ARTICLES IV, V AND VI

I. INITIAL INSPECTIONS AND FACILITY AGREEMENTS

1. Each facility declared and subject to on-site inspection pursuant to Articles IV, V and the Annexes 1 and 2 of Article VI shall be liable to receive an initial inspection from the inspectors promptly after the facility is declared. The purpose of the initial inspection of the facility shall be to verify information provided and to obtain any additional information needed for planning future verification activities at the facilities, including on-site inspections and the use of continuous on-site instruments and to work on the facility agreements. 1/ 2/ 3/

2. Each State Party shall conclude a facility agreement with the Organization for each facility declared and subject to on-site inspection pursuant to Articles IV, V and the Annexes 1 and 2 of Article VI. These agreements shall be completed within ... months after the Convention enters into force for the State or after the facility has been declared for the first time. They shall be based on models for such agreements and provide for detailed arrangements which shall govern inspections at each facility. 4/ 5/

II. SIZE OF THE INSPECTION TEAM

[An inspection team conducting routine inspections pursuant to Articles IV, V and VI shall include no more than (xx) Inspectors and (xx) inspection assistants.] 6/

1/ The consistency of this provision with all verification provisions in the Convention needs further consideration.

2/ A view was expressed that initial inspections should be carried out in accordance with the guidelines for such inspections.

3/ A view was expressed that the rules governing the conduct of inspectors in performing the initial inspection need to be discussed and further elaborated.

4/ A view was expressed that the areas to which inspectors have access at the inspected facility shall be clearly defined in the facility agreement.

5/ It was suggested that with respect to Article VI verification a step-by-step approach should be introduced where appropriate.

6/ The view was expressed that routine inspection effort expressed in inspection man-days should be agreed between the inspected State Party and the Technical Secretariat and not be provided for in the Convention.

III. STANDING ARRANGEMENTS

A. Continuous Monitoring by Instruments

1. Where applicable, the Technical Secretariat shall have the right to install and use continuous monitoring instruments and systems and seals in conformity with the relevant provisions in the Convention and the facility agreements between States Parties and the Technical Secretariat.
2. Continuous monitoring systems consisting of, inter alia, sensors, ancillary equipment and transmission systems shall be specified in the facility agreements. They shall incorporate, inter alia, tamper-indicating and tamper-resistant devices as well as data protection and data authentication features.
3. The Technical Secretariat shall have the right to carry out necessary engineering surveys, construction, emplacement, maintenance, repair, replacement and removal of continuous monitoring instruments and systems and seals.
4. The inspected State Party shall provide the necessary preparation and support for the establishment of continuous monitoring instruments and systems and, to this end, shall, at the request of and at the expense of the Technical Secretariat provide:
 - (i) All necessary utilities for the construction and operation of the monitoring instruments and systems, such as electrical power and heating;
 - (ii) Basic construction materials;
 - (iii) Any site preparation necessary to accommodate the installation of continuously operating systems for monitoring;
 - (iv) Transportation for necessary installation tools, materials and equipment from the point of entry to the inspection site.
5. Every continuous monitoring system shall have such abilities and be installed, adjusted or directed in such a way as to correspond strictly and efficiently to [the sole purpose of detecting prohibited or unauthorized activities] [the purpose of detecting prohibited or confirming permitted activities]. The coverage of the system shall be limited accordingly. The monitoring system shall signal the Technical Secretariat if any tampering with its components or interference with its functioning occurs. Redundancy shall be built into the monitoring system to ensure that failure of an individual component will not jeopardize the monitoring capability of the system.

6. Data to be transmitted from a facility to the Technical Secretariat shall be transmitted by means to be determined. Where necessary, the transmission system will incorporate frequent transmissions from the facility and a query and response system between the facility and the Technical Secretariat. Inspectors shall periodically check the proper functioning of the monitoring system.

7. Seals placed by inspectors and monitoring devices shall only be removed in the presence of inspectors. If an extraordinary event requires the opening of a seal, or the removal of a monitoring device when an inspector is not present, the State Party shall immediately notify the Technical Secretariat. Inspectors shall as soon as possible check that no prohibited or unauthorized activities have occurred at the facilities and replace the seal or monitoring device.

8. The State Party shall immediately notify the Technical Secretariat if an event at a facility subject to systematic international monitoring occurs, or may occur, which may have an impact on the monitoring system. The State Party shall co-ordinate subsequent actions with the Technical Secretariat with a view to restoring the operation of the monitoring system and establishing interim measures, if necessary, as soon as possible.

B. Inspection activities relating to continuous monitoring by instruments

1. The inspection team shall verify during each inspection that the monitoring system functions correctly and that emplaced seals have not been tampered with. In addition, visits to service the monitoring system may be required to perform any necessary maintenance or replacement of equipment, or to adjust the coverage of the monitoring system as required.

2. In the event that the monitoring system indicated any anomaly, the Technical Secretariat shall immediately take action to determine whether this resulted from equipment malfunction or activities at the facility. If, after this examination the problem remained unresolved, the Technical Secretariat shall immediately ascertain the actual situation, including through immediate on-site inspection of the facility if necessary. The Technical Secretariat shall report any such problem immediately after its detection to the State Party who shall assist in its resolution. 1/

1/ The issue of anomalies and irregularities requires further discussion with regard to the consistent usage of terms throughout the Convention and, on a more general level, to the way the underlying concept is to be treated in the Convention.

IV. PRE-INSPECTION ACTIVITIES

1. Routine inspections shall be notified [12] [24] [36] [48] 1/ hours in advance of the planned arrival of the inspection team [at the point of entry] [at the inspection site].
2. Initial inspections shall be notified no less than 72 hours in advance of the estimated time of arrival of the inspection team at the point of entry. Such notifications shall in addition to the information specified in part I, section V A, paragraph 2 also include the specification of the inspection site.

V. DEPARTURE

[In the case of routine inspections pursuant to Articles IV, V and VI, if the inspectors intend to conduct another inspection within the same inspected State Party or host State the inspection team shall return to the point of entry which it used to enter the State and await notification by the Technical Secretariat to the inspected State Party of the next inspection.]

1/ Consideration needs to be given to balance the time required for logistical purposes and the amount of advance warning given to a Party of a pending inspection.

PART III: CHALLENGE INSPECTIONS CONDUCTED PURSUANT TO ARTICLE IX 1/ 2/

I. DESIGNATION AND SELECTION OF INSPECTORS AND INSPECTION ASSISTANTS

1. Inspections under Article IX shall only be performed by Inspectors and inspection assistants especially designated for this function. In order to designate Inspectors and inspection assistants for inspections under Article IX, the Director-General of the Technical Secretariat shall, by selecting Inspectors and inspection assistants from among the full-time Inspectors and inspection assistants for routine inspection activities, establish a list of proposed Inspectors and inspection assistants. It shall comprise a sufficiently large number of Inspectors and inspection assistants having the necessary qualification, experience, skill and training, to allow for [rotation] [random selection] and availability of Inspectors. The designation of Inspectors and inspection assistants shall follow the procedures provided for under Part I, Section II of this Protocol.

2. The Director-General shall select the members of an inspection team also taking into account the circumstances of a particular request. Each inspection team shall consist of not less than [5] inspectors and shall be [kept to a minimum necessary for the proper execution of its task] [not more than ... members 3/]. No national of the requesting State Party, or the inspected State Party shall be a member of the inspection team.

1/ The view was expressed that some main elements contained in this part are subject to further consideration and elaboration of the principles of on-site inspection on challenge, which also need further examination.

2/ The provisions in Part III may need to be amended in the light of experience gained in practice challenge inspections.

3/ It has been suggested that the size of the inspection team should be subject to agreed limits. Further study is needed before trying to specify what the limits should be. It would be useful to explore the relationship among the size of the area to be inspected, the duration of the inspection and the size of the inspection team.

II. PRE-INSPECTION ACTIVITIES

A. Notification

1. The request for a challenge inspection to be submitted to the Director-General of the Technical Secretariat shall contain at least the following information: ^{1/}

- the State Party to be inspected and, if applicable, the host State
- the point of entry to be used
- [- the precise location of the inspection site and the type of site to be inspected]
- the size of the inspection site
- the type of violation suspected including a specification of the relevant provisions of the Convention about which doubts about compliance have arisen and of the nature and circumstances of the suspected non-compliance
- the names of the observer[s] of the requesting State Party

The requesting State Party may submit any additional information it deems necessary.

2. The inspection site shall be delimited by geographic co-ordinates specified to the nearest second. The area subject to inspection shall be deemed to be the maximum area within the precision of the co-ordinates. [Where specification to the nearest second is not possible owing to the absence of sufficiently detailed maps, or where it would be helpful, geographic co-ordinates shall be supplemented by written descriptions.] If possible, the requesting State Party shall also provide a map with a general indication of the inspection site and a diagram specifying precisely the boundaries of the site to be inspected.

^{1/} One delegation held the view that pending a decision on the Status of this Protocol and of the corresponding text for part 2 of Article IX the same formulation concerning the content of the request should be used as in paragraph 2 of page 197 of CD/952 in the same line the term "observer" in this text should be replaced by "representative" as mentioned in paragraph 3 on page 198 of CD/952.

3. The Director-General of the Technical Secretariat shall within [one] hour[s] acknowledge to the requesting State Party receipt of its request. 1/

4. The Director-General of the Technical Secretariat shall notify the inspected State Party not less than [12] hours prior to the planned arrival of the inspection team at the point of entry. Simultaneously the members of the Executive Council shall be informed about the request.

[5. Unless already included in the request for a challenge inspection the requesting State Party shall within 24 hours after the arrival of the inspection team at the point of entry simultaneously inform the inspection team and the inspected State Party of the inspection site. At the same time the inspected State Party shall also be informed by the inspection team about the type of violation suspected as specified in the request in accordance with paragraph 2 of this section.] 2/

B. Entry into the territory of the inspected State Party or host State

The Director-General of the Technical Secretariat shall dispatch an inspection team as soon as possible after a request is received by the Technical Secretariat. The inspection team shall arrive at the point of entry specified in the request [not later than [24] hours after the receipt of a request] [in the minimum time possible]. 3/ 4/

1/ It has been suggested that the transmission of the request needs further discussion in light of unresolved issues under Article IX.

2/ A view was expressed that the inspected State Party be fully informed on the inspection request and the violation it is suspected of at the latest after the arrival of the inspection team at the point of entry.

3/ It has been suggested that while the inspected State Party should co-operate with the Technical Secretariat to ensure rapid arrival of the team at a point of entry, the obligation to co-operate should be a more general one, and that this might best be dealt with in the text of the basic challenge inspection provision.

4/ The view was expressed that overall timeframes from the first announcement of a challenge inspection in a given State Party to the arrival of the inspection team at the inspection site are also important. The timeframes should be such as to enable the inspected State Party to co-operate fully with the inspection while not undermining the value of short-notice inspections.

C. Securing the site

1. To help establish that the site to which the inspection team has been transported corresponds to the site specified by the requesting State Party the inspection team shall have the right to use location-finding equipment and have such equipment and other approved equipment installed according to its directions. [The inspection team may also visit local landmarks identified from maps available to them in order to verify their location.]
2. In securing the inspection site, immediately upon arrival and up to the completion of the inspection, the inspection team shall be permitted to patrol the perimeter of the site, station personnel at the exits and inspect any means of transport [of the inspected State Party] [of any State Party temporarily or permanently based at the site or] leaving or entering the site, in order to ensure that there is no removal or destruction of relevant material. If the inspection team so decides, no such transport may leave the inspection site during the course of the inspection until permitted by the inspection team. The inspection team shall also be permitted to use approved equipment to monitor the perimeter of the site.

D. Pre-inspection briefing

1. A pre-inspection briefing shall be held in accordance with part I, section VI. C. In the course of the pre-inspection briefing, the inspected State Party may indicate to the inspection team the equipment, documentation or areas it considers sensitive and not related to the purpose of the inspection, the Inspectors shall [consider] [take] into account the proposals made to the extent they deem them appropriate for the conduct of their mission. Additionally, personnel responsible for the site will brief the team on the physical layout and other relevant characteristics of the site, the team shall be provided with a map or sketch drawn to scale showing all the structures and significant geographic features at the site. The team shall also be briefed on availability of facility personnel and records.
2. After the pre-inspection briefing the inspection team shall prepare, on the basis of the information available to it, an inspection plan which specifies the activities to be carried out by the inspection team, including the specific areas of the site to be visited, and the sequences in which the planned activities will occur. The plan shall also specify whether the inspection team will be divided into subgroups. The plan shall be made available to the representatives of the inspected State Party and the inspection site. The representatives of the inspected State Party and of the inspection site may suggest modifications to the plan. The inspection team shall have full discretion whether or not to accept any suggestion and shall have the right to modify its inspection plan at any time. The inspection briefing as well as the establishment and discussion of the inspection plan shall not exceed the general time-limit provided for in part I of section VI. C.

III. CONDUCT OF INSPECTIONS

A. General rules

1. Subject to the provisions under section B. and this section the inspection team shall have the access at the site they deem necessary for the conduct of their mission.
2. In carrying out the inspection in accordance with the request, the inspection team shall use only those methods necessary to provide sufficient relevant facts to clarify doubts about compliance with the provisions of the Convention, and shall refrain from activities not relevant thereto. It shall collect and document such evidence as is related to the compliance with the Convention by the inspected State Party but shall neither seek nor document information which is clearly not related thereto, unless the inspected State Party expressly requests it to do so. Any material collected and subsequently found not to be relevant shall not be retained.
3. The inspection team shall be guided by the principle of conducting the inspection in the least intrusive manner possible, consistent with the effective and timely accomplishment of its mission. 1/ Wherever possible, it shall begin with the least intrusive procedures it deems acceptable and proceed to more intrusive procedures only as it deems necessary.

B. Managed access

1. The inspection team shall, to the extent it deems them appropriate, take into consideration and adopt suggested modifications of the inspection plan and proposals which may be made by the inspected State Party, at whatever stage of the inspection including the pre-inspection briefing, to ensure that sensitive equipment, information or areas, not related to chemical weapons, are protected.
2. In conformity with the relevant provisions in the Annex on the protection of confidential information the inspected State Party shall have the right to take measures to protect sensitive installations and prevent disclosure of confidential data not related to chemical weapons. Such measures, which shall not interfere with the inspection, may include:

1/ Possible standardization of procedures to facilitate the implementation, inter alia, of this principle may be considered in the context of a manual for Inspectors to be elaborated by the Technical Secretariat.

- removal of sensitive papers from office spaces and securing them in safes
- shrouding of sensitive displays that cannot be secured in safes
- shrouding of sensitive pieces of equipment, such as computer or electronic systems
- logging off of computer systems and turning off of data indicating devices

Subject to procedures in this Protocol (to be specified) inspectors shall have the right to inspect the entire inspection site, including shrouded or environmentally protected objects and the interiors of structures, containers, and vehicles.

3. It shall be the obligation of the inspected State Party to satisfy the inspection team that any object protected by measures in accordance with paragraph 19 above or any other area, structure, container or vehicle excluded from inspection has not been designed, constructed or used for the suspected activity stipulated in the inspection request.

[This may be accomplished by partial removal of a shroud or environmental protection cover, at the discretion of the inspected party, or by other methods. If the inspected party demonstrates to the satisfaction of the inspection team that the object has not been designed, constructed, or used for the stipulated suspect activity, then there shall be no further inspection of that object.

Furthermore, it shall be the responsibility of the inspected party to satisfy the inspectors that a hazardous area, structure, container, or vehicle has not been designed, constructed, or used for the suspected activity stipulated in the inspection request. If the inspected party demonstrates to the satisfaction of the inspection team by means of a visual inspection of the interior of an enclosed space from its entrance that the enclosed space does not contain any items designed, constructed, or used for the stipulated suspect activity, then such an enclosed space shall not be subject to further inspection ^{1/}.

^{1/} It was suggested that further study is needed regarding what should be done if the obligation to satisfy the inspectors has not been fulfilled.

C. Observer[s]

1. The requesting State Party shall have the right to observe the conduct of a challenge inspection. 1/ It shall liaise with the Technical Secretariat to co-ordinate the arrival of its observer[s] at the same point of entry as the inspection team within a reasonable period of the inspection team's arrival. 2/
2. The observer[s] of the requesting State Party shall have the right throughout the period of inspection to be in communication with the embassy of the requesting State located in the host State or, in the case of absence of an embassy, with the requesting State itself. He shall use the telephone communications provided by the requested State Party.
3. The observer[s] shall have [the right to arrive at the site] [access to the inspection site as granted by the inspected State Party to him/them] [the same access to the inspection site as that granted to the inspection team]. [Throughout the inspection the inspection team shall keep the observer(s) fully informed about the conduct of the inspection and the findings.] 3/
4. Throughout the in-country period, the inspected State Party shall provide or arrange for the amenities necessary for the observer[s] such as communication means, interpretation services, transportation, working space, lodging, meals and medical care. All the costs in connection with the stay of the observer[s] on the territory of the inspected State Party or the host State shall be borne by the requesting State Party.

D. Sampling

The inspection team shall itself have the right to take any air, soil, wipe or effluent samples from the inspection site [,] at the perimeter of the inspection site [,] immediately upon arrival at the inspection site and throughout the period of inspection. 4/

1/ A view was expressed that this sentence contained a basic obligation which should be included in the main body of the Convention.

2/ The procedures for the timely entry of the observer of the requesting State Party into the territory of the inspected State Party/host State require further consideration.

3/ The rights of the observer(s) need to be discussed and further elaborated. If agreement is reached that more than one observer shall be permitted, it might be necessary to specify the maximum number of observers.

4/ It has been suggested that whether inspection team members or escort personnel should take these samples would require further discussion. It was also suggested that procedures for sample analysis require further discussion.

E. Extension of inspection site 1/

If the inspection team considers it necessary, for the purpose of the inspection, to visit any other contiguous location outside the boundaries of the inspection site as originally specified by the requesting State Party, the inspection team leader shall formally submit a written request to the inspected State Party [through the in-country escort]. Within two hours of the submission of the request the inspected State Party shall formally respond in writing to the request [through the in-country escort]. The requesting State Party or the observer[s] of the requesting State Party shall promptly be informed by the inspection team of the request of the inspection team leader and the response to it by the inspected State Party. If the response is negative, the requesting State Party may [through its observer] modify its original request to include the additional contiguous location. Once such a modified request has been formally submitted to [the Director-General of the Technical Secretariat] [the in-country escort], the additional contiguous location shall be subject to inspection by the team within ... hours. A request to visit an additional contiguous location shall not extend the overall period of inspection unless agreed in accordance with section IV. F. below of this section. 2/

F. Duration of an inspection

[The period of inspection shall not exceed ... hours. It may be extended by agreement with the inspected State Party by no more than ... hours. 3/]

IV. DEPARTURE

[1. At the inspected State Party's request, the clothing and equipment shall be left at the site. The inspected State Party shall reimburse the Technical Secretariat for the cost of any clothing and equipment left by the inspection team.]

1/ A view was expressed that the inspection should be conducted strictly within the site as originally specified by the Organization, and there should be no such extension.

2/ A view was expressed that it might not be necessary to formally resort back to the requesting State Party which is already involved in the whole process of the inspection through its observer as currently foreseen in the latter part of paragraph 3, section "Observers".

3/ It has been suggested that before limits of an inspection are specified, it would be useful to explore the relationship between the size of the area to be inspected, the duration of the inspection and the size of the inspection team.

2. Upon completion of the post-inspection procedures at the inspection site, the inspection team and the observer of the requesting State Party shall return promptly to the point of entry at which it entered the inspected State Party or host State and it shall then leave the territory of that State [within 24 hours] [as soon as possible].

V. REPORTS

A. Contents

The inspection report shall summarize in a general way the activities conducted by the inspection team and the factual findings of the inspection team, particularly with regard to the ambiguities or suspected non-compliance cited in the request for the challenge inspection. Detailed information relating to the ambiguity or suspected non-compliance cited in the request for the challenge inspection shall be submitted as an Appendix to the final report and be retained within the Technical Secretariat under appropriate safeguards to protect sensitive information.

B. Procedures

The Inspectors shall within 72 hours of their return to their primary work location 1/ submit a preliminary inspection report to the Director-General of the Technical Secretariat. The Director-General shall promptly transmit the preliminary report to the requesting State Party, the inspected State Party and to the Executive Council. A draft final report shall be made available to the inspected State Party within [20] days of the completion of the inspection for identification of any non-CW-related information it considers should due to its confidentiality not be circulated outside the Technical Secretariat. The Technical Secretariat shall consider proposals for changes to their draft final report made by the inspected State Party and using its own discretion, wherever possible, adopt them. The final report shall be submitted within [30] days of the completion of the inspection and be circulated to States Parties. 2/

1/ The implication of the as yet undefined term "primary work location" requires further consideration.

2/ A view was expressed that the requesting State Party should also have the right to access to the report at any early stage.

PART IV: PROCEDURES IN CASES OF ALLEGED USE OF CHEMICAL WEAPONS

I. GENERAL

1. Investigations initiated pursuant to Articles IX and/or X of the Convention of alleged use of chemical weapons shall be conducted in accordance with this Protocol and detailed procedures to be established by the Director-General of the Technical Secretariat. [Wherever appropriate, the procedures relating to challenge inspections shall apply.]

2. The following additional provisions address specific procedures required in cases of alleged use of chemical weapons.

II. PRE-INSPECTION ACTIVITIES

A. Request for an investigation

The request for an investigation of an alleged use of chemical weapons to be submitted to the Director-General of the Technical Secretariat, to the extent possible, should include the following information:

- the State Party on whose territory use of chemical weapons is alleged to have taken place
- the point of entry or other suggested safe routes of access
- location and characteristics of the area(s) where chemical weapons are alleged to have been used
- when chemical weapons are alleged to have been used
- types of chemical weapons believed to have been used
- extent of the alleged use
- characteristics of the possible toxic chemicals
- effects on humans, animals and vegetation
- request for specific assistance, if applicable

The requesting State Party may submit at any time any additional information it deems necessary.

B. Notification

1. The Director-General of the Technical Secretariat shall immediately acknowledge receipt to the requesting State Party of its request and inform the Executive Council and all States Parties.

2. If applicable, the Director-General of the Technical Secretariat shall notify the State Party on whose territory an investigation has been requested. The Director-General shall also notify other States Parties if access to their territories might be required during the investigation.

C. Assignment of inspection team

1. The Director-General shall prepare a list of qualified experts whose particular field of expertise could be required in an investigation of alleged use of chemical weapons and constantly keep this list updated. This list shall be communicated, in writing, to all States Parties within 30 days of the entry into force of the Convention and after each change to the list. Any qualified expert included in this list shall be regarded as designated unless a State Party, within 30 days after its receipt of the list declares its non-acceptance.

2. The Director-General shall select the leader and members of an inspection team from the full-time inspectors already designated for challenge inspections taking into account the circumstances and specific nature of a particular request. In addition, inspection team members may be selected from the list of qualified experts when, in the view of the Director-General, expertise not available among inspectors already designated is required for the proper conduct of a particular investigation.

3. When briefing the inspection team the Director-General shall include any additional information provided by the requesting State, or any other sources, to ensure that the inspection can be carried out in the most effective and expedient manner.

D. Dispatch of inspection team 1/

1. Immediately upon the receipt of a request for an investigation of alleged use of chemical weapons the Director-General shall, through contacts with the relevant States Parties, request and confirm arrangements for the safe reception of the team.

2. The Director-General shall dispatch the team at the earliest opportunity, taking into account the safety of the team.

3. If the team has not been dispatched within [24] [48] hours from the receipt of the request, the Director-General shall inform the Executive Council and the States Parties concerned about the reasons for the delay.

1/ A view was expressed that an obligation should be laid down to dispatch the team within a fixed time-frame.

E. Briefings

1. The inspection team shall have the right to be briefed by representatives of the inspected State Party upon arrival and at any time during the inspection.
2. Before the commencement of the inspection the inspection team shall prepare an inspection plan to serve, inter alia, as a basis for logistic and safety arrangements. The inspection plan shall be updated as the need arises.

III. CONDUCT OF INSPECTIONS

A. Access

The inspection team shall have the right of access to any and all areas which could be affected by the alleged use of chemical weapons. It shall also have the right of access to hospitals, refugee camps and other locations it deems relevant to the effective investigation of the alleged use of chemical weapons. For such access, the inspection team shall consult with the inspected State Party.

B. Sampling

1. The inspection team shall have the right to collect samples, of types and in quantities it considers necessary. If the inspection team deems it necessary, and if so requested by it, the inspected State Party shall assist in the collection of samples under the supervision of inspector(s) or inspection assistant(s). The inspected State Party shall also permit and co-operate in the collection of appropriate control samples from areas neighbouring the site of the alleged use and from other areas as requested by the inspection team.
2. Samples of importance in the investigation of alleged use include toxic chemicals, munitions and devices, remnants of munitions and devices, environmental samples (air, soil, vegetation, water, snow, etc.) and biomedical samples from human or animal sources (blood, urine, excreta, tissue, etc.).
3. When duplicate samples cannot be taken and the analysis is performed at off-site laboratories, any remaining sample shall, if so requested, be returned to the State Party after the completion of the analysis.

C. Extension of the inspection site

When the inspection team during an inspection deems it necessary to extend the investigation into a neighbouring State Party the Director-General of the Technical Secretariat shall notify that State Party about the need for access to its territory and request and confirm arrangements for the safe reception of the team.

D. Extension of inspection duration

If the inspection team deems that safe access to a specific area relevant to the investigation is not possible, the requesting State Party shall be informed immediately. 1/ If necessary the period of inspection shall be extended until safe access can be provided and the inspection team will have concluded its mission.

E. Interviews

The inspection team shall have the right to interview and examine persons who may have been affected by the alleged use of chemical weapons. It shall also have the right to interview eyewitnesses of the alleged use of chemical weapons and medical personnel and/or other persons who have treated or have come into contact with persons who may have been affected by the alleged use of chemical weapons. The inspection team shall have access to medical histories, if available, and be permitted to participate in autopsies as appropriate of the persons who may have been affected by the alleged use of chemical weapons.

IV. REPORTS

A. Procedures

1. The inspection team shall within 24 hours from its arrival in the inspected State Party send a situation report to the Director-General of the Technical Secretariat. It shall further throughout the investigation send progress reports as necessary.

2. The inspectors shall within 72 hours of their return to their primary work location submit an interim report to the Director-General of the Technical Secretariat. The Director-General shall promptly transmit the report to the Executive Council and all States Parties. The final report shall be submitted to the Director-General of the Technical Secretariat within 30 days of their return to their primary work location.

B. Contents

1. The situation report shall indicate any urgent need for assistance and any other relevant information. The progress reports shall indicate any further need for assistance that might be identified during the course of the investigation.

1/ A view was expressed that a provision to the effect that States Parties shall undertake not to take action which may endanger the safety of the inspection team is needed.

2. The final report shall summarize the factual findings of the inspection, particularly with regard to the alleged use cited in the request. In addition a report of an investigation of an alleged use shall include a description of the investigation process, tracing its various stages, with special reference to (i) the locations and time of sampling and in situ analyses; and (ii) supporting evidence, such as the records of interviews, the results of medical examinations and scientific analyses, and the documents examined by the inspection team.

3. If the inspection team collects any information in the course of its investigation that might serve to identify the origin of any chemical weapons used, inter alia, through identification of any impurities or other substances during laboratory analysis of samples taken, that information shall be included in the report.

V. STATES NOT PARTY

In the case of alleged use of chemical weapons involving a non-State Party or on territory not controlled by a State Party, the Organization shall closely co-operate with the Secretary-General of the United Nations. If so requested, the Organization shall put its resources at the disposal of the Secretary-General of the United Nations.

JURISDICTION AND CONTROL

Chairman's Summary of Consultations

1. Given that the last series of discussions on this issue took place in 1987, the consultations at the outset involved a preliminary exchange of views, which helped achieve a wider appreciation of various national positions and concerns, including:

- the need for consistency, clarity and precision in defining the scope of States Parties' responsibilities under the Convention;
- the question of the exercise of jurisdiction by States Parties over their nationals (including legal entities) abroad.

Furthermore, it was generally recognized that, in the resolution of this issue, the optimum balance needs to be achieved between establishing obligations for States Parties which are both comprehensive and unambiguous and yet do not impose upon States Parties' obligations which cannot be fulfilled.

2. Subsequently, discussions focused on the question of the general undertakings of States Parties, as embodied in Article VII: National Implementation Measures, especially in so far as this relates to the question of jurisdiction over private activities, both territorially and extraterritorially. This was without prejudice to the consideration of the issue of jurisdiction and control in other provisions of the Convention, especially with respect to:

- the scope of States Parties' obligations under Articles I to V (with at least one delegation being of the view that consideration of Article VII needed to be undertaken subject to the resolution of the relevant jurisdiction issues in Articles I to V);
- the monitoring provisions in Article VI (especially paragraph 1 (b)).
- questions of jurisdiction and control with respect to both the issue of old chemical weapons and of Article IX.

3. These discussions showed that specific components of the general undertakings embodied in Article VII require further consideration. While the territorial basis for assuming jurisdiction over all natural persons and legal entities was generally recognized, divergent views remained with respect to:

- the extent of obligations assumed by States Parties by the use of the term "to prohibit and prevent" with respect to activities on a State Party's territory or in any place under its jurisdiction or control, with some delegations suggesting alternatives such as "not to permit" or "to prohibit";

- the question of preserving an appropriate reference to "control" in this provision;
- the extent to which States Parties are able and/or willing to enact penal provisions with respect to their nationals (both natural persons and legal entities) abroad.

4. Furthermore, many delegations recognized that the right of States Parties to co-operate among themselves, as well as the need for extensive legal assistance between States Parties, in fulfilling general undertakings assumed under Article VII were issues which warranted further consideration in the context of Article VII.

5. It was recommended that further consultations, with a view to resolving the issues, be undertaken during the Intersessionals.

OLD CHEMICAL WEAPONS

Chairman's summary of consultations

Resumed consultations with interested delegations, initially bilateral and then open-ended, on the subject of old chemical weapons have revealed that divergencies remain. There is indeed a basic difference between the view that this question should remain a secondary one in the Convention, and another view which considers that it is a central question, not confined to the past, and directly linked to the question of use. The consultations have, however, enabled delegations to focus on specific aspects. The Chairman has reached the following tentative conclusions with respect to further work on the subject:

1. Delegations recognize the need to have some provisions in the Convention to address the issue of old chemical weapons.
2. Consideration of old chemical weapons is closely related to the definition of chemical weapons. Whilst some delegations believe that they should fall under the established definition in Article II, others consider that, given their characteristics, they should be subject to a specific régime, or even that some of them should remain outside the Convention.
3. The circumstances for chemical weapons being present on a country's territory differ, but can be put into four categories:
 - chemical weapons possessed now, or in the past, by that country as part of an active chemical weapons programme;
 - chemical weapons deployed or stored in that country by another country, in accordance with bilateral agreements or security arrangements;
 - chemical weapons abandoned in that country by another country or Government which may have previously been present at, or had some control over, the site of discovery;
 - chemical weapons unearthed on that country's territory where chemical weapons were used in combat, washed ashore, or otherwise retrieved after having been lost or disposed of at sea by another country.

This tentative inventory does not, however, lead for the time being to an agreement between delegations on the proper treatment of old chemical weapons in the Convention.

4. Establishing responsibility for old chemical weapons abandoned in the past by a State Party on the territory of another State Party remains a subject of wide divergencies. There is, however, a widely shared understanding that the discovery of these old chemical weapons should not

impose a priori the responsibility for destruction on the discovering State. To a certain extent, the issue is linked to the question of jurisdiction and control, which is presently under consideration.

5. Delegations agree on the need for a régime to apply to chemical weapons that may be discovered after entry into force of the Convention.

6. There is an agreement that the role of the Organization shall include receiving any notifications by a State Party that it has discovered old chemical weapons, and providing advice, if so requested, to interested States Parties in destroying them. One should take note, in that respect, of the new drafting of Article IV, paragraph 5, which deals with the possibility for each State Party to co-operate with other States Parties through the Technical Secretariat regarding methods and technologies for destruction of old chemical weapons.

7. There is an understanding that the provisions in the Convention should in no way preclude the possibility that countries concerned seek arrangements on a voluntary basis to resolve issues related to old chemical weapons.

POSSIBLE FACTORS IDENTIFIED TO DETERMINE THE NUMBER, INTENSITY,
DURATION, TIMING AND MODE OF INSPECTIONS OF FACILITIES HANDLING
SCHEDULE 2 CHEMICALS 1/ 2/

1. Factors related to the listed chemical
 - (a) Toxicity of the end-product.
2. Factors related to the facility
 - (a) Multipurpose or dedicated facility.
 - (b) Capability and convertibility for initiating production of highly toxic chemicals.
 - (c) Production capacity.
 - (d) On-site storage of listed key precursors in quantities exceeding ... tonnes.
 - (e) Location of the facility and infrastructure for transportation.
3. Factors related to the activities carried out at the facility
 - (a) Production e.g. continuous, batch, types of equipment.
 - (b) Processing with conversion into another chemical.
 - (c) Processing without chemical conversion.
 - (d) Other types of activities, e.g. consumption, import, export, transfer.
 - (e) Volume produced, processed, consumed, transferred.
 - (f) Relationship between maximum and utilized capacity for a scheduled chemical.
 - multipurpose facility
 - dedicated facility
4. Other factors
 - (a) International monitoring by on-site instruments.
 - (b) Remote monitoring.

1/ The terminology of this material might have to be revised on the basis of the present stage of negotiations.

2/ The order in which these factors are listed does not indicate any priority.

AD HOC VERIFICATION

Summary of the discussions on ad hoc verification by the Chairman of Working Group A during the 1990 session

1. At the end of the first part and during the second part of the 1990 session, Working Group A held six meetings dedicated to the concept of ad hoc verification. Documents CD/CW/WP.286 on Ad Hoc Verification, CD/984 on the Establishment of National Registers and CD/CW/WP.300 containing proposed amendments to Articles VI and VII of the Draft Convention were discussed. During the Ad Hoc Committee's meeting with Industrial Experts on 27-29 June 1990, experts from industry provided views and comments, including in written form, on several aspects of ad hoc verification and on the feasibility of the establishment of National Registers.

The following aspects of ad hoc verification were raised:

- Purpose;
- Establishment of National Registers;
- Triggering of an inspection;
- Procedures and objectives.

2. The purpose of ad hoc verification was stated by the proponents of the concept as a means to provide confidence through the monitoring of chemical production facilities which are capable of producing chemicals on Schedules 1, 2 or 3 to Article VI, but which are not declared on any of the Annexes to Article VI, as well as those facilities declared under Annexes 1, 2 and 3 to Article VI.

To these delegations, ad hoc verification would constitute a valuable and necessary part of a comprehensive verification régime additional and complementary to routine inspections and inspections under Article IX.

Other delegations expressed the view that concerns regarding the misuse of production capability could be met by existing verification régimes and expressed doubts about the need for an additional form of verification. It was also stated that an ad hoc verification system might bring unnecessary costs.

Some delegations stated that it was premature to address ad hoc verification until the issues of routine inspections and inspections under Article IX had been settled.

3. There was an emerging understanding that National Authorities in States Parties would have to gather sufficient data on their chemical industry for national implementation of the Convention comparable to that likely to be

required for a National Register. If such a Register were to serve also as a basis for a verification régime, agreed and uniform criteria for its establishment would have to be elaborated. It was observed that the establishment of a Register and keeping it up to date would be complicated, especially for developing countries. A possibility of assistance through the Organization or the United Nations for this purpose was mentioned. Some delegations underlined that any anomalies in the Register, in the first instance, would have to be resolved through consultative or clarification mechanisms.

4. It was argued that only a small fraction of relevant industrial facilities would actually be inspected during a year. Different opinions were expressed regarding to what extent requests from individual States Parties would trigger ad hoc verification or whether it should be initiated by the Technical Secretariat. Proposals were made for the use of active and passive quotas in order to limit the number of inspections for each State Party.

5. Regarding procedures and objectives, it was stated that the inspections would have to be simple and non-intrusive in nature. Some delegations expressed a preference for a system which would verify the absence and non-production of Schedule 1, 2, and 3 chemicals not subject to declaration in any of the Annexes under Article VI. Other delegations preferred a system whereby only the absence of Schedule 1 chemicals at the time of the inspection would be verified.

6. No consensus emerged on the concept of ad hoc verification. Some delegations felt that further discussions are necessary.

MODELS FOR AGREEMENTS

A. MODEL FOR AN AGREEMENT RELATING TO FACILITIES PRODUCING,
PROCESSING OR CONSUMING CHEMICALS LISTED IN SCHEDULE 2

1. Information on the facility producing, processing, or consuming chemicals listed in Schedule 2

(a) Identification of the site and the facility

- (i) Site identification code
- (ii) Name of the complex/site
- (iii) Owner(s) of the complex/site on which the facility is located
- (iv) Name of the company/enterprise operating the facility
- (v) Exact location of the facility
 - (1) Address and location (geographic co-ordinates) of the headquarter building(s) of the site/complex
 - (2) Location (including the geographic co-ordinates, specific building and structure number) of the plant/reactor within the site/complex
 - (3) Location(s) of the relevant building(s)/structure(s) comprising the facility within the site/complex.

These might include:

- (a) Headquarters and other offices
- (b) Operation Process Unit
- (c) Storage/handling areas for feedstock and product
- (d) Purification equipment
- (e) Effluent/waste handling/treatment area
- (f) All associated and interconnecting pipework
- (g) Control/analytical laboratory
- (h) Warehouse storage

- (i) Records associated with the movement of the declared chemical and its feedstock or product chemicals formed from it, as appropriate, into, around and from the site
- (j) Medical centre
- (vi) Other areas to which Inspectors have access.

(b) Detailed technical information

Design information to be obtained during the initial visit should, as relevant, include:

- (i) Data on the production process (type of process: e.g. continuous or batch; type of equipment; the technology employed; process engineering particulars)
 - (ii) Data on processing with conversion into another chemical (description of the conversion process, process engineering particulars and end-product)
 - (iii) Data on processing without chemical conversion (process engineering particulars, description of the process and the end-product, concentration of processed chemical in the end-product)
 - (iv) Data on feedstocks used in the production of processing of declared chemicals (type and capacity of storage)
 - (v) Data on product storage (type and capacity of storage)
 - (vi) Data on waste/effluent treatment (disposal and/or storage; waste/effluent treatment technology; recycling)
 - (vii) Data on clean-up procedures and general maintenance and overhauls
 - (viii) Plan of the complex/site showing the location of the facility as defined in paragraph 1 (a) (v) and other areas as specified in paragraph 1 (a) (vi), including, with functions specified, for example, all buildings, structures, pipework, roads, fences, mains electricity, water and gas points
 - (ix) Diagram indicating the relevant material flow and sampling points at the facility.
- (c) Data on safety and health measures on-site
- (d) Identification of the required degree of confidentiality for information provided during the elaboration of the agreement.

2. Specific facility health and safety rules and regulations to be observed by Inspectors

3. Inspections

On-site inspection activities may include, but shall not necessarily be restricted to, the following:

- (i) Observation of any and all activities at the facility including safety measures
- (ii) Identification and examination of any and all equipment at the facility
- (iii) Identification, verification and registration of any technological or other changes in comparison with the detailed technical information ascertained when the facility agreement was worked out
- (iv) Identification and examination of documentation and records
- (v) Installation, review, servicing, maintenance and removal of monitoring equipment and seals
- (vi) Identification and validation of measuring and other analytical equipment (examination and calibration using, as appropriate, independent standards)
- (vii) Taking of analytical samples and their analysis
- (viii) Investigation of indications of irregularities.

4. Monitoring with instruments on-site

- (a) Specification of items and their locations
 - (i) Instruments supplied by the Technical Secretariat
 - (ii) Instruments at/supplied by the facility
- (b) Installation of the instruments and seals, as appropriate
 - (i) Time schedule
 - (ii) Advance preparations
 - (iii) assistance provided by the facility during installation

(c) Activation, initial testing and certification

(d) Operation

(i) Operating mode

(ii) Routine testing provisions

(iii) Service and maintenance

(iv) Measures in case of malfunctions

(v) Replacement, modernization and removal

(e) Responsibilities of the State Party

5. Instruments and other equipment to be used during the inspections

(a) Instruments and other equipment brought in by the Inspectors

(i) Description

(ii) Examination, as appropriate, by the facility

(iii) Use

(b) Instruments and other equipment provided by the State Party

(i) Description

(ii) Testing, calibration and examination by the Inspectors

(iii) Use and maintenance

6. Sample-taking, on-site analysis of samples

(a) Identification of routine sampling points from

- production or process unit

- stocks, including warehouse, feedstock, storage

(b) Other sample-taking (including wipe samples, environmental and waste/effluent samples)

- (c) Sample-taking/handling procedures
- (d) On-site analyses (e.g. provisions concerning on-site/in-house analyses, analytical methods, sensitivity and accuracy of analyses)

7. Removal of samples from the facility

- (a) in-house analysis off-site
- (b) other

8. Records and other documentation

(1) Records

- (a) Accounting records e.g., quantities of all relevant chemicals moved on to and off site
- (b) Operating records e.g., quantities of chemicals moved through the process unit
- (c) Calibration records as appropriate.

(2) Other documentation

- (3) Location of records/documentation
- (4) Access to records/documentation
- (5) Language of records/documentation

9. Confidentiality

Identification of the required degree of confidentiality for information obtained during the inspection;

10. Services to be provided

Such services may include, but shall not necessarily be restricted to the following:

- (a) Medical and health services
- (b) Office space for Inspectors
- (c) Laboratory space for Inspectors

- (d) **Technical assistance**
- (e) **Communications**
- (f) **Power and cooling water supplies for instruments**
- (g) **Interpretation services**

For each type of services, the following information shall be included:

- (a) The extent to which that service shall be provided
- (b) Points of contact at the facility for the service

11. Updating, changes and revisions of the agreement

12. Other matters

Explanatory note

During the review of the Model for an Agreement relating to facilities producing, processing or consuming chemicals listed in Schedule 2 the words facility, plant, operating process unit, site and complex have been understood as follows:

1. Site. An area, whether or not within a retaining boundary, which is under the operational control of the HQ defined in para. 1 (a)(v)(1). A site may contain one or more plants.
2. Complex. A large area comprising a number of autonomous sites which are not necessarily under the same operational control. There is doubt about the validity of this concept for this model for agreement.
3. Plant. A relatively self-contained area/structure located on a site in which the production, processing or consumption of a particular type of chemical occurs (e.g., an organophosphorus plant, a packaging plant), or where particular types of operating units are grouped e.g., a multi-purpose plant. A plant may contain one or more operating process units.
4. Operating Process Unit. The central array of equipment in a particular plant wherein the declared chemical is produced, processed or consumed. This might include reactor vessel, distillation and condenser units.
5. Facility. All structures and buildings (referred to in para. 1 above) associated with the production, consumption and processing of the declared chemical.

These might include:

- (a) Headquarters and other offices
- (b) Operation Process Unit
- (c) Storage/handling areas for feedstock and product
- (d) Purification equipment
- (e) Effluent/waste handling/treatment area
- (f) All associated and interconnecting pipework
- (g) Control/Analytic laboratory
- (h) Warehouse storage
- (i) Records associated with the movement of the declared chemical and its feedstock or product chemicals formed from it, as appropriate, into, around and leaving the site
- (j) Medical centre

B. MODEL FOR AN AGREEMENT RELATING TO
SINGLE SMALL-SCALE FACILITIES 1/

Proposal by the Co-ordinator of Cluster IV for the 1987 session

1. Information on the single small-scale facility

(a) Identification

(i) Facility identification code

(ii) Name of the facility

(iii) Exact location of the facility

If the facility is located within a complex, then also

- Location of the complex
- Location of the facility within the complex, including the specific building and structure number, if any
- Location of relevant support facilities within the complex, e.g. research and technical services, laboratories, medical centres, waste treatment plants
- Determination of the area(s) and place(s)/site(s) to which Inspectors shall have access

(b) Detailed technical information

(i) Maps and plans of the facility, including site maps showing, with functions indicated, for example, all buildings, pipework, roads, fences, mains electricity, water and gas points, diagrams indicating the relevant material flow at the designated facility and data on infrastructure for transportation

(ii) Data on each production process (type of process, type of equipment, technology employed, production capacity, process engineering particulars)

(iii) Data on the feedstocks used (type of feedstock, storage capacity)

1/ Prepared by Lt. Col. Bretfeld, German Democratic Republic; Dr. Cooper, United Kingdom; Dr. Lau, Sweden; and Dr. Santesson, Sweden.

- (iv) Data on the storage of the chemicals produced (type and capacity of storage)
- (v) Data on waste treatment (disposal and/or storage, waste treatment technology, recycling)
- (c) Specific facility health and safety procedures to be observed by Inspectors
- (d) Dates
 - (i) Date when the initial inspection took place
 - (ii) Date(s) when additional information was provided
- (e) Storage of information

Identification of which information, provided about the facility under paragraph 1, shall be kept by the Technical Secretariat under lock and key at the facility.

2. Number and modalities of inspections

The number and modalities of inspections shall be decided by the Technical Secretariat on the basis of guidelines.

3. Inspections

On-site inspection activities may include, but shall not necessarily be restricted to, the following:

- (i) Observation of any and all activities at the facility
- (ii) Examination of any and all equipment at the facility
- (iii) Identification of technological changes in the production process
- (iv) Comparison of process parameters with those ascertained during the initial visit
- (v) Verification of chemical inventory records
- (vi) Verification of equipment inventory records
- (vii) Review, servicing and maintenance of monitoring equipment
- (viii) Identification and validation of measuring equipment (examination and calibration of measuring equipment, verification of measuring systems using, as appropriate, independent standards)

- (ix) Application, examination, removal and renewal of seals
- (x) Investigation of indicated irregularities

4. Monitoring system

- (a) Description of items and their location
 - (i) Sensors and other instruments
 - (ii) Data transmission system
 - (iii) Ancillary equipment
 - (iv) ...
- (b) Installation of the system
 - (i) Time schedule
 - (ii) Advance preparations
 - (iii) Assistance to be provided by the State Party during installation
- (c) Activation, initial testing and certification
- (d) Operation
 - (i) Regular operation
 - (ii) Routine tests
 - (iii) Service and maintenance
 - (iv) Measures in case of malfunctions
 - (v) Responsibilities of the State Party
- (e) Replacement, modernization

5. Temporary closure

- (a) Notification procedure
- (b) Description of the types of seals to be use
- (c) Description of how and where seals shall be fixed
- (d) Provisions for surveillance and monitoring

6. Instruments and other equipment to be used during inspections

(a) Instruments and other equipment installed or brought in by Inspectors

(i) Description

(ii) Testing, calibration and examination by the State Party

(iii) Use

(b) Instruments and other equipment to be provided by the State Party

(i) Description

(ii) Testing, calibration and examination by Inspectors

(iii) Use and maintenance

7. Sample-taking, on-site analyses of samples and on-site analysis equipment

(a) Sample-taking from production

(b) Sample-taking from stocks

(c) Other sample-taking

(d) Duplicates and additional samples

(e) On-site analyses (e.g. provisions concerning on-site/in-house analyses, analytical methods, equipment, precision and accuracy of analyses)

8. Records. The records to be examined shall be determined after the initial visit and shall include the following:

(a) Accounting records

(b) Operating records

(c) Calibration records

The following shall be determined on the basis of the initial visit:

(a) Location and language of records

(b) Access to records

(c) Retention period of records

9. Administrative arrangements

- (a) Preparations for the arrival and departure of Inspectors
- (b) Transport of Inspectors
- (c) Accommodation for Inspectors
- (d) ...

10. Services to be provided ^{1/}

Such services may include, but shall not necessarily be restricted to, the following:

- (a) Medical and health services
- (b) Office space for Inspectors
- (c) Laboratory space for Inspectors
- (d) Technical assistance
- (e) Telephone and telex
- (f) Power and cooling water supplies for instruments
- (g) Interpretation services

For each type of service, the following information shall be included:

- (a) The extent to which that service shall be provided
- (b) Points of contact at the facility for the service

11. Other matters

12. Revisions of the agreement

^{1/} The question of charges for the services needs to be discussed.

C. MODEL FOR AN AGREEMENT RELATING TO CHEMICAL
WEAPONS STORAGE FACILITIES ^{1/}

Proposal by the Co-ordinator of Cluster IV for the 1987 session

1. Information on the storage facility

(a) Identification:

- (i) Storage facility identification code;
- (ii) Name of the storage facility;
- (iii) Exact location of the storage facility.

(b) Dates:

- (i) Date of the initial verification of the Declaration of the facility;
- (ii) Date(s) additional information provided

(c) Layout:

- (i) Maps and plans of the facility, including
 - boundary map to show entrances, exits, nature of boundary (e.g. fence);
 - site maps to include locations of all buildings and other structures, bunkers/storage areas, fences with access points indicated, mains electricity and water points, and infrastructure for transports including loading areas;
- (ii) Details of the construction of bunkers/storage areas which might be of relevance for verification measures;
- (iii) ...

(d) Detailed inventory of the contents of each bunker/storage area;

(e) Specific facility health and safety procedures to be observed by Inspectors.

^{1/} Prepared by Lt. Col. Bretfeld, German Democratic Republic; Dr. Cooper, United Kingdom; Dr. Lau, Sweden; and Dr. Santesson, Sweden.

2. Information relating to the transport of chemical weapons from the facility

- (a) Detailed description of loading area(s);
- (b) Detailed description of loading procedures;
- (c) Type of transport to be used, including construction details relevant to verification activities, e.g. where to place seals;
- (d) ...

3. Number and modalities of systematic inspections, etc.

The number and modalities of systematic inspections will be decided by the Technical Secretariat on the basis of guidelines.

4. Inspections

(a) Systematic on-site inspections

Systematic on-site inspection activities may include, but are not necessarily restricted to, the following:

- (i) Application, examination, removal and renewal of seals;
- (ii) Review, servicing and maintenance of monitoring equipment;
- (iii) Verification of the inventory of randomly selected sealed bunkers/storage areas.
 - Percentage of bunkers/storage areas to be verified during each systematic on-site inspection.

(b) On-site inspections of transports from the facility

On-site inspections of transports of chemical weapons from the storage facility may include, but are not necessarily restricted to, the following:

- (i) Application, examination, removal and renewal of any seals relevant to the transportation of chemical weapons;
- (ii) Verification of the inventory of bunkers/storage areas from which chemical weapons are to be transported;

- (iii) Observation of the loading procedure and verification of items loaded;
 - (iv) Adjustment/realignment of the coverage of the monitoring system.
- (c) Inspections to resolve indicated irregularities (ad hoc inspections)

Ad hoc inspection activities may include, but are not necessarily restricted to, the following:

- (i) Investigation of indicated irregularities;
 - (ii) Examination, removal and renewal of seals;
 - (iii) Verification as required of the inventory of bunkers/storage areas.
- (d) Continuous presence of Inspectors

The activities of continuously present Inspectors may include, but are not necessarily restricted to, the following:

- (i) Application, examination, removal and renewal of seals;
- (ii) Verification of the inventory of any selected sealed bunkers/storage areas;
- (iii) Observation of any and all activities at the storage facility, including any handling of stored chemical weapons for the purpose of transport from the storage facility.

5. Seals and markers

- (a) Description of types of seals and markers
- (b) How and where seals are to be fixed

6. Monitoring system

- (a) Description of items and their locations:
 - (i) Sensors and other instruments;
 - (ii) Data transmission system;
 - (iii) Ancillary equipment;
 - (iv) ...

- (b) Installation:
- (i) Time schedule;
 - (ii) Advance preparations at the storage facility;
 - (iii) Assistance to be provided by the State Party during installation.

(c) Activation, initial testing and certification

(d) Operation:

- (i) Regular operation;
- (ii) Routine tests;
- (iii) Service and maintenance;
- (iv) Measures in case of malfunctions;
- (v) Responsibilities of the State Party.

(e) Replacements, modernizations

(f) Dismantling and removal

7. Provisions governing instruments and other equipment to be used during inspections

(a) Instruments and other equipment brought in by Inspectors:

- (i) Description;
- (ii) Testing, calibration and examination by the State Party;
- (iii) Routine use.

(b) Instruments and other equipment to be provided by the State Party:

- (i) Description;
- (ii) Testing, calibration and examination by Inspectors;
- (iii) Routine use and maintenance.

8. Provisions governing sample-taking, on-site analyses of samples and on-site analysis equipment

- (a) Sample-taking from munitions, notably the standardization of methods for each different type of munition present at the facility
- (b) Sample-taking from bulk stocks

- (c) Other sample-taking
- (d) Duplicates and additional samples
- (e) On-site analyses (e.g. provisions concerning on-site/in-house analyses, analytical methods, equipment, precision and accuracy of analyses)

9. Administrative arrangements

- (a) Preparations for arrival of Inspectors
- (b) Transport for Inspectors
- (c) Accommodation for Inspectors
- (d) ...

10. Services to be provided ^{1/}

Such services should include, but are not necessarily restricted to, the following:

- medical and health services;
- office space for Inspectors;
- laboratory space for Inspectors;
- technical assistance;
- telephone and telex;
- power and cooling water supplies for instruments;
- interpretation services.

For each type of service, the following information should be included:

- the extent to which that service is to be provided;
- point of contact at the facility for the service.

11. Amendments and revisions of the agreement

(e.g. changes in loading procedures, types of transport, analytical methods)

12. Other matters

^{1/} The question of charges for the services needs to be discussed.

OUTCOME OF THE 1989 OPEN-ENDED CONSULTATIONS ON THE EXECUTIVE COUNCIL 1/

Working basis on composition and decision-making process

During the 1989 session, the Chairman of the Ad Hoc Committee carried out private and open-ended consultations on the composition and decision-making process of the Executive Council.

This paper contains the preliminary outcome of these consultations. It is presented with the aim of facilitating the further consideration of this issue. It should be stressed that delegations involved in the consultations accepted, as a working basis only, a hypothetical Executive Council of 25 members, then proceeded to examine issues associated with the Executive Council on that basis. Neither the basic hypothesis nor the options discussed about size, composition, allocation of seats and decision-making process, nor any of the positions formulated during the consultations constitute agreement; they do not necessarily represent any delegation's national position.

A. Size 2/

1. The Executive Council shall be composed of (25?) 3/ States Parties to the Convention, (with ... members?) elected for a (3?)-year term.
2. (8/9?) members shall be elected every (?) years(s). 4/
3. Monthly rotating chairmanship / or Chairman elected for (1?) year by the Executive Council/or the Conference of the States Parties; / or the Chairman of the Conference of the States Parties shall serve as a non-voting Chairman of the Executive Council.

B. Composition

Taking into account the eligibility of each State Party to serve on the Executive Council and the need to ensure an equitable balance in membership, its composition:

1/ During the 1990 session, the Chairman of the Ad Hoc Committee continued open-ended consultations on the composition and decision-making process of the Executive Council, as well as on its powers and functions.

2/ The possibility of a specific decision on change in size of the Executive Council to be provided for in advance has been discussed.

3/ Proposals made range from 15 to 35.

4/ The subjects of re-election and of non-elected members have been discussed.

1. shall be based on the representation of the five regional groups of the United Nations;
2. and on / the national capacity in the relevant 1/ chemical industry / and on / the political factor/

C. Allocation of seats

1. The allocation of seats could be made on the following basis:
 - Each of the five regional groups will be allotted (3?) seats; these will be filled by members elected by the Conference of the States Parties on the proposals by the regional groups.
 - The remaining seats (10?) will be filled (on proposal by the Executive Council,) in accordance with paragraph B.2 (by members elected by the Conference of the States Parties).
2. A number of concrete formulae could be derived from A., B. and C.1 2/

1/ The view was expressed that the word "relevant" should be further discussed.

2/ The following concrete formulae have been discussed:

(a) Allocation of 5 seats per regional group of the United Nations, taking into account the industrial and political considerations within each region.

(b) Allocation of seats to the 5 permanent members of the United Nations Security Council, with the remaining seats apportioned equally among the 5 regional groups.

(c) Allocation of 3 seats per regional group and 10 seats on the basis of industrial criterion to be determined.

(d) Allocation of 5 seats to the 5 most industrially advanced States Parties in the world; allocation of one seat each to the industrially most advanced States Parties in the regions not covered by the first category; and allocation of the remaining seats to the 5 regional groups, with 4 seats for the 2 groups not covered by the second category.

(e) Allocation of 3 seats per regional group and 10 seats on the basis of the political factor to be determined.

(f) Allocation of 3 seats per regional group; and 10 seats on the basis of industrial criteria to be determined, with at least 3 of the latter being allotted to Latin America/Africa/Asia.

D. Decision-making process

1. Each member of the Executive Council has one vote.
2. The decision-making process of the Executive Council could be based on: simple majority for matters of procedure; consensus for matters of substance; and after ... hours a majority of (...).
3. Voting requirements other than a two-thirds majority could be developed in order to prevent any preponderance. */

(g) Allocation of 3 seats per regional group; allocation of 5 seats to the industrially most advanced States Parties; allocation of 5 seats taking into account the political factor following a 2-1-1-1 pattern.

(h) (10?) seats on proposal by the Executive Council "amongst States Members whose presence in the Executive Council would be beneficial for the good functioning of the Convention"; allocation of 4 seats per regional group of which 2 seats to the industrially most advanced States Parties of each group not included in the former category.

(i) Allocation of seats on the basis of the requirement of regional spread and the weight to be allotted to a country in relation to its industrial importance.

*/ A view was expressed that, in order to prevent preponderance, the decision-making process should be such that no one regional group could impose a decision on others and, in turn, could not be imposed upon with a decision it does not agree with.

CLASSIFICATION SYSTEM OF CONFIDENTIAL INFORMATION 1/

During the verification activities under the Chemical Weapons Convention the proper balance should be observed between the degree of intrusiveness and the need to protect confidential information. Only when necessary data reporting and verification should rely on confidential information. Its handling shall not be in conflict with the existing international legal norms, namely with regard to the protection of intellectual property. In drawing the rules for handling and protection of confidential information the Director-General of the Technical Secretariat shall use the following classification, establishing the level of confidentiality of information:

(a) Information, which could be released for public use through the official reports of the Organization to the United Nations or other institutions or upon request to States Non-Parties to the CWC, various organizations or individuals. The Executive Council shall determine the general parameters covering the release of information for public use, within which the Director-General of the Technical Secretariat shall consider and decide upon individual requests. Requests going beyond these parameters shall be referred to the Executive Council for decision. However, information from other classifications related to specified States Parties shall not be made public without the consent of the State Party concerned. The Director-General may disseminate any other information in accordance with a request by a State Party to which the information refers. This category shall cover, i.a., general information on the course of the implementation of the Convention;

(b) Information with distribution limited to States Parties to the Convention. The main source of such information will be the Initial and Annual Declarations on the aggregate quantities of chemicals produced and number of facilities operating in individual States Parties. Data of such nature might be included in the reports to various bodies of the Organization. States Parties shall have easy access to such information and shall treat it as confidential (e.g. not to be offered to press). A routine distribution of this information shall be made to the Executive Council members and to the Technical Secretariat. Data, not contained in the regular reports, might be requested by States Parties. The Director-General shall respond positively to such requests, unless they contravene the agreed rules for the classification of confidential information;

(c) Information limited to the Technical Secretariat, to be used primarily for the planning, preparation and carrying out of verification activities. This category shall comprise mainly detailed, facility-related information, obtained from the relevant declarations, facility attachments and

1/ This material shall be transferred to the Preparatory Commission/ Director-General of the Technical Secretariat for consideration in the elaboration of relevant regulations.

conclusions from on-site inspections. The Director-General shall regulate the access to such information by the Technical Secretariat personnel on the "need-to-know" basis. Respect by the International Inspectorate and other Technical Secretariat personnel for confidential nature of information obtained will be ensured through contracts or appropriate recruitment and employment procedures as well as agreed measures applied against the Technical Secretariat staff in case of breach of rules for the protection of confidential information. Most sensitive information might be stored under code numbers rather than names of countries and facilities. Information, achieved through generalization of the facility-related data, could be, in accordance with the agreed procedure, released for use by States Parties;

(d) Most sensitive kind of confidential information, containing data required only for the actual performance of an inspection like, e.g. blueprints, specific data related to technological processes, types of records. Such information shall be limited to justified needs for protection of technological know-how and shall only be available to inspectors on the site. It shall not be taken from the premises.

* * *

The rules for classifying and handling of confidential information should contain sufficiently clear criteria ensuring:

- inclusion of information into appropriate category of confidentiality;
- establishing justified durability of confidential nature of information;
- rights of States Parties providing confidential information;
- procedures allowing, if necessary, to move a kind of information from one confidentiality category to another;
- modifications, when necessary, of procedures for handling individual categories of information.

OUTCOME OF THE 1989 OPEN-ENDED CONSULTATIONS ON ARTICLE IX, PART 2:
ON-SITE INSPECTION ON CHALLENGE 1/

During the 1989 session, the Chairman of the Ad Hoc Committee carried out private and open-ended consultations on Article IX, Part 2 (on-site inspection on challenge). 2/ These consultations were based on the text elaborated by the Chairman of the Ad Hoc Committee for the 1987 session, Ambassador Rolf Ekéus of Sweden and by the Chairman of Working Group C for the 1988 session, as contained in CD/952, Appendix II, pages 193-195.

This paper contains the outcome of these consultations but does not address all the issues covered in the former text. The paper is not presented as a draft Article IX, Part 2, but with the aim of furthering the process of elaboration of Article IX. Although the text of this paper is unbracketed, it does not necessarily constitute agreement.

1. Each State Party has the right to request an on-site inspection in any other State Party in order to clarify (and resolve) any matter which causes doubts about compliance with the provisions of the Convention, or any concern about a matter pertaining to the implementation of the Convention and which is considered ambiguous, and to have this inspection conducted anywhere, at any time and without delay by a team of inspectors designated by the Technical Secretariat. The inspection shall be mandatory, with no right of refusal. A requesting State is under the obligation to keep the request within the scope of the Convention. Throughout the inspection, the requested State has the right and is under the obligation to demonstrate its compliance with the Convention.

2. The request shall be submitted by the requesting State to the Director-General of the Technical Secretariat, 3/ 4/ who shall immediately notify the State to be inspected and inform the members of the Executive Council (as well as all other States Parties). The requesting State Party

1/ The Chairman of the Ad Hoc Committee for the 1990 session undertook open-ended consultations on Article IX as a whole.

2/ A view was expressed that these consultations are preliminary, exploratory in nature and inexhaustive. Some major elements contained in this document require further consideration, and there are some other elements to be examined.

3/ A view was expressed that the request should be channelled through a Fact-finding Panel.

4/ It has been pointed out that there is a need to discuss ways and means to prevent misuse of such requests.

shall, as precisely as possible, specify the site to be inspected 1/ and the matters on which reassurance is required, including the nature of the suspected non-compliance, as well as indicate the relevant provisions of the Convention about which doubts of compliance have arisen.

3. The mandate of the team of inspectors for the conduct of the inspection is the request put into operational terms, and must conform with the request. The team shall conduct the requested on-site inspection with the purpose of establishing relevant facts. The inspection team shall have the access to the site it deems necessary for the conduct of the inspection. It shall conduct the inspection in the least intrusive manner consistent with the effective and timely accomplishment of their task. The time-frame within which the team shall arrive at the site, secure it the way it deems necessary, have access to it and perform and conclude the inspection, and the relevant procedures, as well as the relationship of the representative of the requesting State to the inspection team and to the requested State are specified in (the Annex to this Article and in) the Protocol on Inspection Procedures.

4. The requested State shall be under the obligation to admit the inspection team and the representative of the requesting State into the country, to assist the team throughout the inspection and to facilitate the task of the inspection team. In keeping with its right and obligation, the requested State may propose to the inspection team ways and means for the actual conduct of the inspection and also the protection of sensitive equipment or information not related to the Convention. The inspection team shall consider the proposals made to the extent it deems them adequate for the conduct of its mission. 2/

5. In the exceptional case that the requested State proposes arrangements to demonstrate compliance, alternative to a full and comprehensive access, it shall inform the inspection team and make every effort, through consultations with the requesting State / and the inspection team 3/ / to reach agreement on the modalities for establishing the facts and thereby clarify the doubts. If no agreement is reached within 24 hours,

- the inspection shall be carried out in accordance with the request,

1/ Possible specification of the site in two steps to be further discussed.

2/ The concepts of alternative measures and managed access need further clarification.

3/ Further consideration is necessary on whether it is the requesting State Party or the inspection team or both which would agree on alternatives to access.

- or the inspection team shall carry out the inspection in accordance with the inspection mandate as it deems necessary;
- or the inspection team shall take the decision;
- or the inspection team shall carry out the inspection in accordance with the guidelines set by the Director-General of the Technical Secretariat. 1/

6. The Director-General of the Technical Secretariat shall promptly transmit the report of the inspection team, which shall be factual (and contain, if necessary, individual observations of inspectors), to the requesting State, to the requested State, to the Executive Council and to all other States Parties. 2/ He shall further transmit promptly to the Executive Council the assessment 3/ of the requesting State, the views of the requested State and the views of other States Parties which may be conveyed to him for that purpose, and then provide them to all States Parties. 4/ When requested by any State Party, 5/ the Executive Council shall meet within 48 hours to review the situation and consider any appropriate further action necessary 6/ to

1/ The concepts of alternative measures and managed access need further clarification.

2/ Further consideration is needed as to the nature of the report and as to how much of its contents is to be provided to all States Parties in view of the sensitivity of information possibly contained therein.

3/ A view was expressed that the term "assessment" is too vague.

4/ Further discussion is needed with regard to the decision-making process and actions of States Parties and organizational bodies following a challenge inspection.

5/ A view was expressed that the meeting of the Executive Council should be automatic.

6/ A view was expressed that, with regard to follow-on actions of the Executive Council, it should not take a vote on the inspection report nor on whether a party is complying with the Convention. In this regard, the question of what further action the Executive Council might recommend, including possible sanctions after any on-site inspection, needs further consideration and discussion.

redress the situation and ensure that the Convention is being complied with, including specific proposals to the Conference of the States Parties. 1/ The Executive Council shall inform the States Parties of the outcome of its meeting. 2/

1/ A view was expressed that in view of Article VIII procedures, this sentence is not necessary nor appropriate here. Placing it here seems to limit the many possible courses of action available to States Parties, the Executive Council and Conference of States Parties after a challenge inspection.

2/ The view was expressed that further consideration is needed as to the extent to which the process after the submission of the inspection report should be spelt out in Article IX.

Article X: Assistance and Protection against Chemical Weapons 1/

1. For the purposes of this Article, protection against chemical weapons, which contributes to the undiminished security of States Parties, covers inter alia, the following areas: detection equipment and alarm systems, protective equipment, decontamination equipment and decontaminants, medical antidotes and treatments and advice on any of these protective measures. [Assistance means the co-ordination and delivery of such protection to States Parties.]

2. Nothing in this Convention shall be interpreted as impeding the right of any State Party to the Convention to conduct research into, develop, produce, acquire, transfer or use means of protection against chemical weapons, for purposes not prohibited by the Convention.

3. [All States Parties to the Convention undertake to facilitate, and shall have the right to participate in, the fullest possible] [Nothing in this Convention shall be interpreted as impeding the right of States Parties to] exchange [of] equipment, material and scientific and technological information concerning means of protection against chemical weapons.

4. The Technical Secretariat shall establish and maintain, for the use of any requesting State Party, a data bank containing freely available information concerning various means of protection against chemical weapons as well as such information as may be provided by States Parties.

The Technical Secretariat shall also, within the resources available to it, and at the request of a State Party, provide experts for advice and assist it in identifying how its programmes for the development and improvement of a protective capacity against chemical weapons could be implemented.

5. [Each State Party has the right to request and shall receive assistance and protection against use or threat of use of chemical weapons, (hereinafter referred to as "assistance") from the Organization and States Parties] [Each State Party has the right to request from other States Parties protection against chemical weapons, and from the Organization, assistance in this regard] if it considers that

1/ This text was elaborated during the 1989 session. Further consultations were undertaken in 1990. However, the Chairman concluded that conceptual differences remained. Further consultations are needed.

- (i) chemical weapons have been used against it;
 - (ii) it faces actions or activities by any State which are prohibited for States Parties to this Convention. ^{1/}
6. [Each State Party undertakes to provide or support assistance] [as it may deem appropriate]. [For this purpose it may elect:

- (i) to contribute to the voluntary fund for assistance;
- (ii) to conclude, if possible within six months after the entry into force of the Convention, agreements with the Organization concerning the procurement, upon demand, of medical aid, medical treatment, protection equipment, services and technical advice;
- (iii) to declare within six months after the entry into force of the Convention the kind of assistance and protection it might provide in response to an appeal by the Organization.

The Organization shall [be empowered to] establish a voluntary fund, conclude agreements and receive declarations to implement the provisions set forth in this paragraph.]

7. The Organization shall [provide] [process a request for] assistance in accordance with the following provisions:

- (a) the request shall be addressed to the Director-General of the Technical Secretariat and shall be accompanied by relevant [reliable and] specific information [on the nature of the circumstances];
- (b) the Director-General of the Technical Secretariat shall:
 - (i) immediately inform the Executive Council, all States Parties [and the United Nations Security Council] about the request;

^{1/} It is understood that if a State Party considers that it faces actions or activities by another State Party which might be otherwise incompatible with the purposes and objectives of the Convention, it has the right to request clarification in accordance with paragraphs 3-7 of Article IX.

- (ii) initiate within [24] hours an investigation 1/ 2/ 3/ in order to provide the foundation for [any] action by [the Organization] [or States Parties]. The investigation shall, as appropriate and in conformity with the request and the information accompanying it, establish facts related to the request as well as to the types and scope of assistance [and protection] necessary.

The investigation shall be carried out in accordance with the procedures ... (to be developed). 4/ 5/

(c) In case the information available from the ongoing investigation and other reliable sources would give sufficient proof that there are victims of use of chemical weapons and immediate action is indispensable, the Director-General of the Technical Secretariat shall provide such information to the Executive Council and all States Parties and [initiate] [initiate contacts and co-ordinate] emergency measures of assistance [in close consultation with the Executive Council] [with the prior consent of the Executive Council]. 6/

1/ The relationship between this investigation and any concurrent Article IX investigation by the Organization need further consideration and discussion.

2/ A view was expressed that the relationship with, and co-ordination between, this investigation and investigative activities of other international organizations, e.g. United Nations and the International Committee of the Red Cross, need further consideration and discussion.

3/ The ability of the Organization to investigate actions involving a non-State Party needs further consideration.

4/ In elaborating the procedures, appropriate elements of the inspection procedures under Article IX, including the time frames set forth therein, as well as the experience gained through investigations by the Secretary-General of the United Nations concerning the possible use of chemical weapons, shall be taken into account.

5/ The need for quick and timely reporting, including interim reporting if necessary, as well as for speedy conclusion of the investigation has to be further elaborated.

6/ In order to make emergency measures more effective, it has been proposed that sets of material be prepared and put as first-aid kit at the disposal of the Director-General of the Technical Secretariat.

(d) After submission of the investigation report [and if requested by a State Party], the Executive Council shall meet within [24] hours to consider it [and shall take action not later than eight hours following the start of the consideration]. [On the basis of the report] [Following this consideration], the Executive Council shall [decide on the provision of assistance in conformity with paragraph 6] [decide on the utilization of resources available in conformity with paragraph 6] [and] [make recommendations to States Parties on the provision of assistance].

[The decision of the Executive Council shall be taken by a simple majority]. The report of the investigation and [the decision taken by] [any recommendation of] the Executive Council shall be communicated to all States Parties.

(e) The Director-General of the Technical Secretariat shall [implement the decision of the Executive Council] in close co-operation with the requesting State Party, other States Parties and relevant international agencies [and] [co-ordinate the collection and distribution of assistance].

Article XI: Economic and technological development 1/

1. The provisions of this Convention shall be implemented in a manner designed, in so far as possible, to avoid hampering the economic or technological development of Parties to the Convention and international co-operation in the field of peaceful chemical activities including the international exchange of scientific and technical information and chemicals and equipment for the production, processing or use of chemicals for peaceful purposes in accordance with the provisions of the Convention.

2. The States Parties to this Convention, subject to its provisions, shall:

(a) have the right, individually or collectively, to conduct research with, to develop, produce, acquire, retain, transfer and use chemicals;

(b) undertake to facilitate, and have the right to participate in, the fullest possible exchange of chemicals, equipment and scientific and technical information relating to the development and application of chemistry for purposes not prohibited by this Convention;

(c) not impose any restrictions [on a discriminatory basis] which would impede development and promotion of scientific and technological knowledge in the field of chemistry.

This provision shall be without prejudice to the generally recognized principles and applicable rules of international law concerning peaceful chemical activities [including those concerning any proprietary rights and environmental or health protection].

1/ Some delegations expressed the view that this Article required further consideration. In particular, in their view, there exists no common understanding as to the definition of key terms in the wording proposed for this Article, and therefore no clear picture of the extent of the obligations to be undertaken by States Parties.

Article XII: Relation to other international agreements 1/

1. Nothing in this Convention shall be interpreted as in any way limiting or detracting from the [obligations] [rights and obligations] assumed by any State under the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, and under the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, signed at London, Moscow and Washington on 10 April 1972.

Each Party to this Convention that is also Party to the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, signed at Geneva on 17 June 1925, affirms that the obligation set forth in paragraph 3 of Article I supplements its obligations under the Protocol.

or/and

2. This Convention shall not affect the rights and obligations of States Parties which arise from other agreements compatible with this Convention.

- or alternatively -

None of the provisions of this Convention shall suspend or modify the commitments undertaken by States Parties pursuant to other international instruments related to this Convention.

1/ Several delegations expressed the view that this article was not needed.

Measures to Redress a Situation and to Ensure Compliance 1/

1. Amend Article VIII.A.2. as follows:

All States Parties to the Convention shall be members of the Organization. The right of membership of the Organization cannot be withdrawn.

2. Amend Article VIII.C.2.(d) as follows:

In particular, the Executive Council shall

(d) consider any issue or matter within its competence, affecting the Convention and its implementation, including doubts or concerns regarding compliance and cases of non-compliance, and, as appropriate, inform States Parties and bring the issue or matter to the attention of the Conference of the States Parties. In its consideration of doubts or concerns regarding compliance and cases of non-compliance, including, inter alia, the abuse of rights provided for by the Convention, 2/ the Executive Council shall consult with the States Parties involved and, as appropriate, request corrective action, within a specified time, by the State Party. To the extent that the Executive Council considers further action to be necessary, it shall take, inter alia, one or more of the following measures: 3/

- (i) inform all States Parties of the issue,
- (ii) bring the issue to the attention of the Conference of the States Parties,
- (iii) make recommendations to the Conference of the States Parties regarding measures to redress the situation and ensure compliance.

In cases of particular gravity and urgency the Executive Council shall [,if it deems necessary,] bring the issue, including relevant information [and recommendations], directly to the attention of the United Nations Security Council. It shall at the same time inform all States Parties of this step.

1/ The view was expressed that the word "Sanctions" better reflects the purpose of the following provisions.

2/ The view was expressed that it was not necessary to mention the abuse of rights as a specific case of non-compliance.

3/ The view was expressed that the role of the Executive Council at this juncture needs further elaboration.

3. Additional provisions

(a) The Conference of the States Parties shall take the necessary measures, as provided for under paragraphs (b) to (d) below, to ensure compliance with the Convention and to redress and remedy any situation which contravenes the provisions of the Convention. In considering action under this paragraph, the Conference of the States Parties shall take into account all information and recommendations on the issues submitted by the Executive Council.

(b) In cases where a State Party has been requested to take action to correct problems regarding its compliance and where the State Party fails to fulfil the request within the specified time, the Conference of the States Parties [may] [shall] restrict or suspend the State Party's rights and privileges ^{1/} under the Convention until it undertakes the necessary action to conform with its obligations under the Convention.

(c) In cases where serious damage to the objectives and purposes of the Convention may result from actions prohibited by the Convention, in particular by Article I, the Conference of the States Parties may recommend collective measures to States Parties in conformity with international law. ^{2/}

(d) The Conference of the States Parties may bring the issue, including relevant information [and recommendations], to the attention of the United Nations General Assembly and the United Nations Security Council when, in its opinion, international peace and security may be threatened.

^{1/} The view was expressed that the question of restricting or suspending States Parties' rights and privileges needs further consideration.

^{2/} The view was expressed that this paragraph should be given further consideration.

Reservations 1/

1. No reservations or exceptions, however phrased or named, [including interpretative statements or declarations], may be made to this Convention [unless expressly permitted by other provisions of the Convention].
2. The provision in paragraph 1 above does not preclude a State when signing, ratifying or acceding to this Convention, from making statements or declarations, however phrased or named, provided that such statements or declarations do not purport to exclude or to modify the legal effect of the provisions of this Convention in their application to that State.

- or alternatively -

This Convention shall not be subject to reservations.

Status of Annexes

The subject needs further discussion.

1/ The view was expressed that the concerns of a State Party should be dealt with during the negotiations of the Convention so that reservations will not be necessary. Thus, the reservations issue should be dealt with at a further stage in the negotiations.

Material on the Preparation Period

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I. OBJECTIVE OF WORK

1. The general objective of the work connected with the preparation period is to ensure:

(a) the entering into force of the Convention without undue delay, and to create the conditions necessary for its implementation from the very beginning;

(b) the promotion of a universal adherence to the Convention. ^{1/}

II. MEASURES CONNECTED WITH THE NEGOTIATIONS

1. The provision of relevant data will be instrumental for the elaboration of procedures, the identification of thresholds and the assessment of costs.

States should be encouraged to participate in the exchange of such information. Further discussion to increase the compatibility of such information might be necessary. The outline for the provision of data to the Preparatory Commission, as contained in attachment 2, could be used as starting point for such a discussion.

2. The transmission of material not being part of the text of the Convention to the Preparatory Commission has to be arranged for in advance.

A register should be established by the Secretariat of the Ad hoc Committee, which will include documents relevant to the further preparation of the implementation of the Convention. An example for the possible structure of such a register is comprised in attachment 3.

III. INFORMATION AND CO-OPERATION REQUIREMENTS FOR SIGNATORIES PRIOR TO THE ENTRY INTO FORCE OF THE CONVENTION

The work to be accomplished by the Preparatory Commission will be complex and manifold. The correct functioning of the implementation mechanism of the Convention will depend to a large extent on the results which this body will achieve in the course of its activities. The contributions of signatories to the Convention will be instrumental to this end. ^{2/}

^{1/} Further consideration of specific activities on this subject will be necessary.

^{2/} See the attachment 1 on preparation activities.

The following requirements will have to be met:

1. Information on the progress of the ratification process
2. Information on
 - CW stockpile facilities
 - CW production facilities
 - CW destruction facilities
 - Production of chemicals included in Schedules 1, 2, 3 1/
 - National Authorities
3. Co-operation in the following fields:
 - acquisition and testing of instruments and devices for monitoring and inspection activities;
 - designation of instruments for routine and challenge inspection;
 - designation and installation of off-site laboratories and elaboration of respective procedures;
 - preparation for the designation of inspectors;
 - training of inspectors for verification activities (routine and challenge inspection);
 - prenegotiation of facility agreements related to facilities to be inspected under Articles IV, V and VI;
 - preparation for designation of points of entry.
4. In order to ensure that these requirements will be met in the appropriate time-frames, concrete arrangements might be necessary. 2/

1/ An outline for the provision of such data is attached to this paper.

2/ The legal status of the Preparatory Commission and the obligations of States Signatories thereto needs further consideration.

ATTACHMENT 1

Overview of some activities of the Organization to be carried out after entry into force of the Convention, the ensuing preparatory work to be accomplished prior to this date and the information and co-operation requirements arising for signatories

Provision	Activity of the Organization	Time to start after entry into force	Preparatory work	Information and co-operation requirements
III, IV, V	Declarations to receive, compile and distribute to States Parties i.e. general and detailed declarations on CW stocks, CW production facilities, general and detailed plans for CW destruction and destruction/conversion of production facilities	30 days 6 months or 9 months	Establishment of administrative framework for declaration and data as well as preparation for the study, compilation of and dissemination of data and declaration to States Parties and other units of the Secretariat	Information on the progress in the process of ratification to enable planning for the date when the Convention enters into force
VI	Declarations on activities not prohibited by the Convention (relevant chemicals and facilities which produce, process or consume them)	30 days resp. annually		
IV (3)	Verification of declaration on CW at the location of each stockpile	Immediately after 30 days	Recruitment and training of (...) inspectors & supporting staff	Information on CW stocks, their size and number of locations
IV (3)	Verification of non-removal of CW-stockpiles (continuous presence of inspectors and monitoring with instruments)	30 days/ continuously	Development and procurement of monitoring instruments and devices for the inventory control procedure	Acquiring and testing of monitoring instruments and devices

ATTACHMENT I (continued)

IV (6)	Verification of destruction (continuous presence of inspectors and monitoring with instruments during active destruction phase)	After 1 year or earlier until the end of destruction	Recruitment and training of (...) inspectors & supporting staff, development and procurement of instruments	Number of destruction facilities. Approximate time of operation, operation schedules, acquiring and testing of instruments and devices
V (5)	Verification of declarations of CW production facilities	Immediately after 30 days	Recruitment and training of (...) inspectors & supporting staff	Information on CW production facilities, their number and location
V (6)	Inspection and continuous monitoring of closure of CW production facilities (periodic & on-site instruments)	3 months until destruction	See above & development and procurement of instruments	See above & acquiring and testing of instruments
V (8)	International verification of destruction of CW production facilities	Not later than 12 months until the end of destruction	Recruitment and training of (...) inspectors & supporting staff	Support in training activities
V (9)	International verification of temporary conversion of a CW production facility into a CW destruction facility	See above	See above	Information about intention of conversion
VI Annex VI (1) II, 4	Initial visits to SSPFs and "other facilities" Systematic on-site verification of SSPFs and "other facilities" through on-site inspection and monitoring with instruments	Immediately after 30 days Immediately after 30 days	Recruitment and training of (...) inspectors & supporting staff See above & development and procurement of instruments	Information on SSPFs and "other facilities" in operation upon entry into force See above & acquiring and testing of instruments

ATTACHMENT I (continued)

VI Annex VI (2), 11	Conclude agreements concerning on-site verification of facilities producing etc. chemicals listed in Schedule (2)	(6) months	Prenegotiation of agreements with signatories	Prenegotiation of agreements with the Preparatory Commission
IV Annex IV, II, 7 and V, 7 VI (2) 14	Samples analysis in off-site laboratories designated by the Organization	Immediately after 30 days	Setting up a scheme of standardized equipment for off-site laboratories, designation of off-site laboratories and procedures for transport and handling of samples	Co-operation in the designation of off-site laboratories, installation of such laboratories pursuant to the schemes of the Preparatory Commission
Guidelines on the International Inspectorate (routine and challenge)	Designation of inspectors and inspection personnel	Immediately	Indication to signatories which inspectors are chosen for designation	Indication to the Preparatory Commission whether the inspectors might be acceptable
IX, 2	Agreement on points of entry Carrying out of challenge inspections	Immediately	Preliminary agreement Training of inspectors for challenge inspections	Preliminary agreement Support in training activities
IX, 2	Designation of instruments for purposes of challenge inspection	Immediately	Development, procurement, testing, preliminary designation	Acquiring and testing of instruments
VII	Communicate with National Authorities	Immediately	Preparation of a list of names, addresses, communication lines	Providing data on National Authorities

ATTACHMENT I (continued)

<p>VI Annex VI (2), 9</p>	<p>Initial visits</p>	<p>Immediately after 30 days</p>	<p>Recruitment & training of (...) inspectors & supporting staff development and procurement of instruments</p>	<p>Information on facilities producing, processing or consuming chemicals listed in Schedule (2), acquiring and testing of instruments</p>
<p>Annex VI (2), 5</p>	<p>Systematic on-site verification on routine basis</p>	<p>Within (6) months</p>	<p>Establishment of administrative frame- work for agreements and negotiations, further refinement of models for agreements, prenegotiation of such agreements with States Parties which will be needed during the first year</p>	<p>Prenegotiation of agreements on facilities under Articles IV, V, VI respectively with the Preparatory Commission</p>
<p>IV Annex IV, II, 3</p>	<p>Conclude agreements concerning storage facilities</p>	<p>Earlier than 12 months</p>	<p>See above</p>	<p>See above</p>
<p>IV Annex IV, V, 5</p>	<p>Conclude agreements concerning on-site verification of CW destruction facilities resp. combined plans for destruction and verification</p>	<p>Within (6) months</p>	<p>See above</p>	<p>See above</p>
<p>V Annex V, V, 2</p>	<p>Conclude agreements concerning on-site verification of declarations and systematic monitoring of closure and verification of destruction of CW production facilities</p>	<p>Within (6) months</p>	<p>Further elaboration of the model for an agreement, prenegotiation of agree- ments with signatories</p>	<p>Prenegotiation of agreements with the Preparatory Commission</p>
<p>VI Annex VI (1), II, 5</p>	<p>Conclude agreements concerning on-site verification of SSPFs and "other facilities"</p>	<p>Immediately after 30 days</p>	<p>See above</p>	<p>See above</p>

ATTACHMENT 2

Nature of data to be submitted

Such data would include, inter alia:

1. Information on CW stockpile facilities
 - number of facilities
 - size of each facility (agent tons, square km)
 - aggregate amount (agent tons)
2. Information on CW production facilities
 - number of facilities
 - preliminary plans for their destruction
3. Information on CW destruction facilities
 - number of facilities
 - preliminary plans for the destruction of CWs
 - (time-frames for the first active destruction phase)
4. Production of Schedule-1-chemicals
 - 4.1 Information on SSF
 - location of the facility
 - 4.2 Information on "other facilities" producing above 100 g
 - number of facilities
 - location of the facilities
5. Production etc. of Schedule-2-chemicals
 - number of facilities
 - location of the facilities
 - names of chemicals produced etc. at each facility
 - production etc. amount per annum at each facility (in ranges)
6. Production etc. of Schedule-3-chemicals
 - number of facilities
 - location of the facilities
 - names of chemicals produced etc. at each facility
 - production etc. amount per annum at each facility (in ranges)
7. Others

ATTACHMENT 3

Possible structure of a register for material of relevance for the further preparation and eventual implementation of the Convention

- (A) Documents tentatively agreed upon, but not forming part of the draft (possible example: model for agreements on facilities).
- (B) Recorded understandings related to the work of the Preparatory Commission and/or the Organization.
- (C) Problems on which further work is required after the negotiations have been terminated.
- (D) Information on intentions of Governments concerning voluntary contributions for the Preparatory Commission, the Organization and States to assist in the preparation of the implementation of the Convention.
- (E) Studies, data-base, technical expertise related to the activities of the Organization in the implementation process (example: experience on trial inspections, data provided).
- (F) Other documents.

ATTACHMENT 1

Annex to the Convention on the Prohibition of Chemical Weapons
(Further elaboration and eventual implementation of the Convention)

- (A) Documents tentatively agreed upon, but not forming part of the Convention
(for example: model for agreements on facilities)
- (B) Detailed understandings related to the work of the Preparatory Commission
and/or the Organisation.
- (C) Areas on which further work is required after the negotiations have
been terminated.
- (D) Information on intentions of Governments concerning financial
contributions for the Preparatory Commission and/or the Organisation
in the preparation of the Convention.
- (E) Studies, data-bases, etc.

During the 1990 session of the Conference on Disarmament, proposals and suggestions were presented regarding ways and means of achieving universal adherence to the Convention. These are included for further consideration:

CONFERENCE ON DISARMAMENT

CD/1033,
page 241
Appendix II

CD/CW/WP.303
28 June 1990

Original: ENGLISH

Ad Hoc Committee on Chemical Weapons

UNION OF SOVIET SOCIALIST REPUBLICS
UNITED STATES OF AMERICA

Proposed Revisions to the Rolling Text

Article IV

Revise paragraph 5 (as in CW/Group B/5/Rev.3; 9 April 1990) to read as follows:

"5. Each State Party shall:

(a) destroy all chemical weapons pursuant to the Order of Destruction specified in the Annex to Article IV, beginning not later than one year from the date the Convention enters into force for it, and finishing not later than 10 years after the Convention enters into force or as determined by the special conference of States Parties to be held pursuant to Article VIII, section B, subsection (b), paragraph 4 bis. However, a State Party is not precluded from destroying its chemical weapons at a faster pace;"

Article VIII

B. Conference of the States Parties

(b) Powers and functions

Add a new subparagraph 4 bis as follows:

"A special conference of States Parties shall be held at the end of the eighth year after the date of entry into force of this Convention to discuss the implementation of the principles and objectives of the Convention. This special conference shall, inter alia determine in accordance with the procedures specified in the Annex to Article IV, whether the participation in the Convention is sufficient for proceeding

to the total elimination of all remaining chemical weapons stocks over the subsequent two years. The conference shall not have the authority to amend the Convention."

Annex to Article IV

(text as in CW/Group B/5/Rev.3; 9 April 1990)

Revise paragraph 2, first tick, in section III, subsection B to read as follows:

"- shall start the destruction of Category 1 chemical weapons not later than one year from the date the Convention enters into force for it, and shall complete it not later than 10 years after the entry into force of the Convention, or as determined by the special conference of States Parties to be held pursuant to Article VIII, section B, subsection (b), paragraph 4 bis." (remainder of text unchanged)

In Section III, subsection B, add a new paragraph 3 as follows:

"3. At the special conference of States Parties to be held pursuant to Article VIII, section B, subsection (b), paragraph 4 bis, an affirmative decision that participation in the Convention is sufficient for proceeding to the total elimination of all remaining chemical weapons stocks over the subsequent two years shall require the agreement of a majority of the States Parties that attend the special conference, with such majority including those States Parties attending the special conference that had taken the following three steps:

(a) presented officially and publicly, before 31 December 1991, before the Conference on Disarmament, a written declaration that they were at the time of that declaration in possession of chemical weapons;

(b) signed the Convention within thirty days after it was opened for signature; and

(c) became a party to the Convention by no later than one year after its entry into force."

Statement by the Group of 21 on the "Proposed
Revisions to the Rolling Text"

The Group of 21 takes note of the bilateral agreement between the United States of America and the Union of Soviet Socialist Republics on destruction and non-production of chemical weapons and on measures to facilitate the multilateral convention on banning chemical weapons signed on 1 June 1990. It considers the decision by the USSR and the United States to halt the production of chemical weapons and to start the destruction of the bulk of their declared chemical weapons stockpiles to be an important and positive step. The Group hopes that this agreement shall enter into force in the near future.

However, the Group of 21 regrets the proposed revisions to the present draft convention as contained in CD/CW/WP.303 which will have negative effects because they, *inter alia*, put conditions and postpone the decision for the total elimination of chemical weapons, give rights to States based on the possession of chemical weapons, and create a situation of legal uncertainty about the scope and the implementation of the multilateral convention. The Group emphasizes that the ultimate goal must be a non-discriminatory convention of a universal adherence.

The Group of 21 is convinced that the bilateral agreement should not be the model for a multilateral treaty and believes that there should be no deviation from the principal undertakings in the present draft convention. In this regard, the Group of 21 is of the view that the total destruction of all chemical weapons and chemical weapons production facilities should be unconditional and decided from the very conclusion of the convention as already provided for in the present draft convention so that by the end of the 10 years destruction period all chemical weapons and chemical weapons production facilities would be totally eliminated. This undertaking should be without any reservation.

The Group of 21 reaffirms its position that the future convention on chemical weapons should prohibit the use of such weapons under any circumstances from the date the convention enters into force. This undertaking is already provided for in article I, paragraph 3, of the draft convention.

The Group of 21 opposes any measures which are aimed at establishing a non-proliferation régime in the field of chemical weapons. In its view, non-proliferation in all its aspects can only be achieved through a total and comprehensive ban of chemical weapons.

CONFERENCE ON DISARMAMENT

CD/1025
CD/CW/WP.314
31 July 1990

ENGLISH
Original: SPANISH

PERU

PROPOSAL BY PERU FOR THE INCLUSION IN THE CHEMICAL WEAPONS CONVENTION OF AN ARTICLE ON "DURATION"

"This Convention shall be permanent in character and shall continue in force indefinitely. The obligations flowing from it shall nevertheless cease for States Parties not possessing chemical weapons if, 90 days after the conclusion of the period of destruction provided for in article (...), the Organization is not in a position to declare that all the States Parties have fully carried out their obligations specified in article I of this Convention."

CONFERENCE ON DISARMAMENT

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CONFERENCE ON DISARMAMENT
1978-1994

This Convention shall be permanent in nature and shall be open to all States. The obligation of States to refrain from the acquisition or possession of nuclear weapons shall be permanent and shall not be subject to termination or suspension. The Convention shall be subject to periodic review and shall be subject to amendment by a two-thirds majority of the States Parties.

CONFERENCE ON DISARMAMENT

CD/1040
CD/CW/WP.321
31 August 1990

Original: ENGLISH

ISLAMIC REPUBLIC OF IRAN

National Trial Inspection

INTRODUCTION

The present technical report is the outcome of the experiment carried out under the "National Trial Inspection" (NTI) at one of the chemical plants in order to contribute to the success of international efforts aimed at totally eliminating chemical weapons through a comprehensive convention of prohibition of production, stockpiling, development and use of chemical weapons. The inspection was carried out pursuant to document CD/CW/WP.213 of 19 September 1988.

GENERAL APPROACH:

1. OBJECTIVES

The purpose of this paper is to identify certain problems encountered during the NTI process and to evaluate different factors relating to such approach in particular:

- To evaluate whether the facility has produced any type of chemicals listed in schedule 2 not included in its declaration or whether it has diverted the produced chemicals to any prohibited purposes;
- To evaluate the cost of such an inspection;
- To determine physical constraints on inspection procedures;
- To evaluate the operational and economic impact of an inspection on a commercial facility;
- To evaluate the preparation needed for an inspection and to evaluate the minimum to fulfil the inspection mandate.

The experts of the Islamic Republic of Iran launched a national trial inspection in late June 1990 to assess the said elements at a facility producing dimethyl dichlorovinyl phosphate (DDVP) for production of household insecticides. The participation in this national trial inspection was also a good opportunity for various departments and organs in the Islamic Republic to get oriented with the Convention.

1.2 TYPE OF ON-SITE INSPECTION

The national trial inspection was carried out in accordance with document CD/CW/WP.213 and can be characterized as a "routine" inspection which included an initial visit.

1.3 ADVANCE INFORMATION

(a) Declaration

The full facility statistics and data were declared by the company to the authorized body in a specified format. The required data were in accordance with the declaration format set up in CD/961.

(b) Agreement on inspection procedure

A facility agreement was negotiated during the initial visit. Although the facility does not produce chemicals of schedule 2, but the model agreement contained in CD/961 served as the starting point for drafting the facility agreement with additions and changes required.

1.4 TYPE OF FACILITY TO BE INSPECTED

The facility inspected was a batch multi-purpose plant and a part of a chemical complex producing household and agricultural insecticides. The chemical produced was primarily organophosphorus used for formulating insecticides.

1.5 TYPE OF DECLARED ACTIVITY AT THE FACILITY

The declared activities at the facility were as follows:

- Consumption of trimethyl phosphate, schedule 3 chemical, and trichloroacetaldehyde for production of dichlorovinyl phosphate (dichlorovos);
- Production of dichlorovinyl phosphate (DDVP), as the key feed-stock for formulation of household and agricultural insecticides.

1.6 ACTUAL ACTIVITY AT THE FACILITY

During the inspection, all activities were going on normally. The declared facility consisted of raw material storage area (in liquid and solid form), production facility, waste treatment site, product storage area, formulating and packaging area and analytical area which were all operational and active.

2. DETAILED APPROACH:

2.1 THE INSPECTION MANDATE

A facility attachment was negotiated by the general manager of the Iranian National Industrial Organization (INIO) and the inspection. The facility attachment specified the areas to be inspected; the procedures of inspections, the route of inspection, sample taking points and procedures and the documents to be examined.

2.2 COMPOSITION OF THE INSPECTION TEAM

The inspection team consisted of 14 persons. Although the team was manned of more than needed but in a bid to show the importance of the Convention, representatives of concerned organs had also been invited.

The composition of the team was as follows:

1. An official from the Ministry of Foreign Affairs involved in CWC negotiations;
2. An official from the Joint Chief Staff Command of the Armed Forces Headquarters;
3. Three members of the Chemical Weapons Convention Committee in Teheran with PhD and MSC degrees in chemical engineering specialized in process engineering;
4. Representative of the Armed Forces in CW Committee in Teheran;
5. A representative from the Ministry of Industries in charge of verifying the facility's data documents;
6. Three experts from the Toxicology Research Department, University of Teheran, in charge of sample taking, transportation and analysis of samples;
7. Four experts from the Armed Forces (Revolutionary Guards Corps) specialized on chemical warfare detection.

2.3 INSPECTION EQUIPMENT

In a bid to further the efficiency of the inspection, some equipment was moved to the site including:

- An automatic detector designed by Iranian NBC Defence Establishment for detecting low concentration agents;
- Mobile "GC-Mass" spectrometer.

The instruments used for off-site analysis were:

- Gas chromatography (GC) and gas chromatography-mass spectroscopy (GC-Mass);
- Atomic absorption.

2.4 ACTIVITY PRIOR TO THE ARRIVAL OF THE INSPECTION TEAM ON-SITE

For preparation of the inspection, meetings were arranged with the authorities and visits were made to the central office of the company to obtain permission for the inspection, time of the initial visit and the inspection. The matters pertaining to facility arrangements were also discussed.

During the process of initial visit, facility declaration was made and facility attachment was signed. Preparatory work including visits mentioned earlier took a few weeks.

2.5 ADVANCE PREPARATION ON-SITE

Facility personnel served as informal guides and the management of the plant gave advance notification to make the inspection possible during the batch production in which a schedule 3 compound was produced. Arrangements were also made for transportation of off-site equipment. The office of the general manager served as the designated point of contact at the site.

2.6 DURATION OF INSPECTION AND INITIAL VISIT

- The initial visit took nine hours (27 May 1990);
- The facility agreement four man days (27 May 1990);
- The inspection 16 man days (27 June 1990);
- The preparation of the report 35 man days (15 July 1990).

2.7 MEASURES TO PROTECT CONFIDENTIAL INFORMATION

Based on the facility attachment, it was agreed that the information gathered from the facility or given by the management be treated as confidential (the result of the trial inspection in respect to the Convention is to be published in consultation with the management of the company and authorities concerned).

2.8 OPENING CONFERENCE

In the opening conference the leader of the inspection team introduced the members of this team, presented their credentials and outlined the inspection plan. The facility manager too introduced managers of departments and personnel available for inspection. He further outlined safety procedures for the inspectors. This conference took one hour in total.

2.9 PLANT ORIENTATION

During the initial visit, a plant orientation tour of the entire facility was arranged by the manager and the different sites of the facility were explained (the plant layout is found in the appendix).

2.10 INSPECTION OF AREAS AND FACILITY EQUIPMENT

The focal point of inspection was the DDVP reactor system and all equipment related to it including feed-stock storage and a variety of holding and storage tanks and pumps.

Actual size of reactors, vessels and tanks was verified with the help of physical measurements. Visual observations of raw material and product storage houses and tanks, analytical laboratory and waste treatment facility were made. In addition, samples were taken from the products in drums and from the waste treatment tanks and the reactor to verify the content.

The inspection team was split into five groups:

- Group I, responsible for sampling;
- Group II, responsible for verifying the process;
- Group III, responsible for process control analysis;
- Group IV, responsible for documentation analysis (records examination);
- Group V, observers.

During the course of the inspection, the leader of the team was responsible to meet the unforeseen needs of the inspectors with the aid of facility personnel.

2.11 INSPECTION OF OPERATION PROCEDURES

During the inspection, all the production and ancillary equipment was examined in detail to ensure their suitability for declared activity and their probable use for undeclared ones such as production of schedule 1 and other toxic chemicals. Notes were taken about the size of reactor in accordance with designed capacity and the physical characteristics of the reactor and the ancillary equipment. Particular attention was paid to the waste treatment and the safety measures in different areas. It was noted that the above mentioned factors were in accordance with the original design specification (the process diagram is presented in the appendix).

2.12 TYPES OF RECORDS NEEDED AND/OR AUDITED

Records and files of raw materials and products were checked to verify the consumption of raw materials used for production and the declared product. The examination process and the types of records studied are given in appendix 3.

2.13 SAMPLING AND SAMPLE TAKING PROCEDURES

The points of sample taking were specified in the facility attachment. Inspectors were equipped with the equipment and materials required for sampling. Sampling was carried out by the personnel in the presence of the inspection team. The areas and places from where the samples were taken were:

- Raw material storage tanks, vessels and sacks;
- Raw materials holding tanks to the reactor;
- Reactor (beginning, mid and end of reaction);
- DDVP carrying pumps. These pumps were washed by organic solvents and a sample was taken from the resulting solution;
- Waste treatment facility. Samples were taken from pipes carrying, washing liquid from reactor and tanks;
- Samples were taken from waste treatment tanks;

- Soil around raw material and product storage tank;
- Air samples from the reactor, waste treatment and the product storage areas.

2.14 SAMPLE HANDLING

All samples which were taken in two sets, were sealed, numbered and coded. One set was left in the facility and another was taken for off-site analysis. Someone from the facility was assigned to accompany the samples to the off-site laboratory to observe the analysis process. Due to the far distance of the facility from the laboratory, and because of high temperature, a portable cold storage box was used to prevent any outside effect.

2.15 ANALYSIS OF SAMPLES

Samples taken from feed-stocks, reactor solution and products were analysed on-site and in presence of the inspectors. Another part of these samples was analysed off-site (in the presence of facility personnel). Samples from soil, pumps, waste and air were also analysed off-site.

The results of such analysis proved that no other chemicals were used or produced in addition to the declared activities.

2.16 TYPES OF ANALYSIS

The analysis carried out to verify the activities in accordance to the declared format proved that no chemicals of schedule 1 had been produced. For this purpose, a gas chromatography (GC) and a gas chromatography-mass spectroscopy (GC-MASS) were used. Non-presence of schedule 1 chemicals was verified by military detection unit.

2.17 DOCUMENTATION OF THE INSPECTION

The plant layout, the equipment layout, the piping plan and the electrical plan were presented during the initial visit.

The information collected during the initial visit and the reports prepared by different inspection groups were filed in the chemical weapons defence establishment.

2.18 EVALUATION BY INSPECTORS

The inspectors carefully evaluated the declared data with the actual activities in the facility. The difficulties and obstacles during the inspection process were analysed by the inspectors and suggestions were made.

2.19 CLOSING CONFERENCE

During the one-hour closing conference, the data and the information collected were discussed and confidentiality of the facility attachment was underlined.

2.20 ANOMALIES, DISPUTES AND COMPLICATIONS

- The formulation of the final product and activities was not disclosed.
- Safety instructions and procedures were practised properly.
- The efficiency of the reactor was discussed.

2.21 REPORT OF THE INSPECTION TEAM

During the inspection, the inspectors collected the data in note forms. However, since some samples had to be taken for off-site analysis, a time lag of four days was needed for submission of the report. Appendix 2 is the extract of the inspectors' report.

2.22 THE IMPACT OF THE INSPECTION ON THE FACILITY OPERATIONS

In the facility attachment, the inspection route and timing was planned in such a way that the inspection took place from the beginning of the batch in order to take the shortest possible time for inspection. During the inspection, the managing director accompanied the leader of the inspection team and the department managers assisted the inspectors.

OTHER MATTERS (A)

COSTS

The costs of routine inspection varies considerably from one country to another. This is mainly due to the labour, accommodation, laboratory and transportation costs. The break down of the inspection procedures carried out and their costs, are as follows:

- Initial visit preparation and initial visit, 1.5 man months;
- Pre-inspection preparation and the inspection 1.5 man months;
- Laboratory, 800,000 Rials;
- Report writing, 1.5 man months;
- Transportation: the cost of transportation depends on the location of the facility.

The costs of transportation for this exercise were around 250,000 Rials (70 Rials = \$1);

- Other expenses such as meals etc., were around 150,000 Rials.

Hence the total cost of the routine inspection was around 3 million Rials which is equivalent to about \$42,000.

For the present NTI exercise, no accommodation was needed, but under the assumption of an average 6 man is needed for the inspection to be carried out in four days, then the cost of accommodation would be around 500,000 Rials or about \$7,200.

It is to be noted that the cost of military equipment and instruments were not considered.

RESULTS

The results obtained by the national trial inspection (NTI) exercise carried out in one of the chemical plants producing DDVP (a non-schedule chemical) by using trimethyl phosphate (a schedule 3 chemical) show that:

- The process was in accordance to what was declared;
- No other chemicals except those declared, were found in analysis of the samples;
- No warfare agent was detected by military equipment, on-site mobile GC/MS or the analysis carried out in off-site;
- No considerable discrepancies were experienced during the process of records analysis.

Organizations co-operated in this exercise were highly qualified and experienced, due to valuable experiences they gained during the war. The presence of very accurate analytical instruments also prevented any substantial error.

It is worth mentioning that for the double check of the analytical results, a random set of samples was sent to the Chemistry Department of the University of Tabriz in the north-west of the country.

With regard to the cost of such an inspection, it should be mentioned here that such an inspection costs between \$50,000 to \$60,000.

DISCUSSIONS AND RECOMMENDATIONS

The present national trial inspection carried out by the Islamic Republic of Iran is in accordance to the proposals made by the Ad Hoc Committee on Chemical Weapons, in order to verify whether it is possible to ascertain that the declared chemical industry facilities are not used for production of chemicals prohibited by the CW Convention. The aim of the inspection measures is to create confidence among the parties to the convention and to envisage, at this stage of negotiation, the conditions in which the highly complex tasks of the team of inspectors could be carried out. Although many countries have already indicated, by their national trial inspection exercises, the national problems of such an inspection, but since the task is not easy, it requires a more clear definition of the extent of the work to be done, the responsibility of each member of the team and the role of the facility representative in prepared formats.

The importance of such inspections are known to every party, and since the results obtained by the routine inspection and even challenged inspection can be very vital for them, hence the inspection must be carried out in a carefully designed manner.

Based on the experience gained by the Iranian experts, the following conclusions and recommendations are presented:

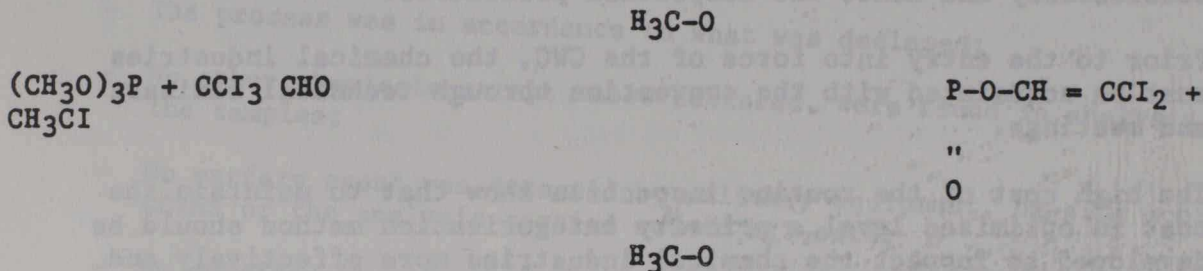
1. Iran is a big country and access to plants needs a relatively long time. This fact makes timing and adequate preparations necessary.
2. In the developing countries, means of communications for optimal inspection should be taken into account.
3. The routine inspection is applicable.
4. Trained and experienced personnel can shorten the inspection time considerably and hence the inspection procedures.
5. Prior to the entry into force of the CWC, the chemical industries must be acquainted with the convention through technical seminars and meetings.
6. The high cost of the routine inspection show that to maintain the cost in optimized level a priority categorization method should be developed to inspect the chemical industries more effectively and less time consuming.
7. For reduction of the inspection time, military equipment and instruments especially detection units and kits can play an important role and the cost of the inspection can considerably be reduced. Application of military instruments in inspections are therefore recommended.

APPENDIX 1

PROCESS INSPECTION

The inspection and verification of the process equipment were thoroughly carried out by two process technologists for three hours.

For the production of Dichlorovos, trichloroacetaldehyde and three methyl phosphite are reacted according to the following chemical formula:



The raw materials and the solvent from the holding tanks are transferred to the reactor. The low boiling point gases are discharged from the top of the reactor, to the heat exchanger and finally to the solvents separator vessels.

The impure product is purified by a distillation column. The purified Dichlorovos is finally transferred to the storage vessels. In every batch, 221 Kilos of the product is produced.

The process inspectors noted the following:

- The signs, physical conditions, mode of operations and the flows of each processes equipment.
- The capacity and the physical conditions of the raw materials storage vessels and the quantity of raw materials in storage.
- The thorough put and the physical conditions of the pipes and pumps.
- The specifications of the equipment and the means of heating and cooling of the materials.
- The specifications of the waste disposal equipment.
- The signs and capacities of product storage vessels.

The result of the process inspection was in accordance with the declared activity and no considerable discrepancies were detected.

The flow diagram of the process is given in Figure (1). Also in this diagram the points of sample taking are shown.

APPENDIX 2

SAMPLE TAKING AND ANALYSIS

For the analysis of the samples, three analytical chemists with Ph. D degrees specialized in toxicology were appointed. The samples were taken by the facility personnel under the supervision of the chemists.

It is worth mentioning that the points of sample taking were specified before the inspection proceeded.

The samples were taken in double by appropriate means and equipment such as sampling pumps.

The points where examples were taken were as follows:

- Raw material storage vessels and holding tanks.
- Reactor, before the initiation of the reaction, half time of the completion of the reaction and in the end of the batch time by using the sampling valve attached to the reactor.
- The dust on the filters of masks (in random selection) and the air conditioning system.
- Condensate of the reaction gases from the heat exchanger.
- The bottom flow and the upper flow of the distillation column.
- Pumps connected to the reactor before and after the operation, by washing with solvent. Because of the batch operation of the process, sample taking from the pumps did not disturb the production programme of the facility.
- Dust around the reactor area.
- Waste treatment area; (washing solvent and sludge). The sample taking was done by floating the sample jar.

Soil around the waste treatment area.
- Dust on the filter of masks (in random manner selection) and air conditioning system.
- Product and byproduct storage vessels and drums (random order).

ANALYSIS

Instrumental analysis was carried out for all samples including DDVP, to detect the purity compounds.

Instruments which were used are:

- Gas chromatograph (GC).
- Mass-spectrometer connected with gas chromatograph (GC-MS).
- Nuclear magnetic resonance (NMR).

The samples were transported by using air tight glass bottles and portable cold boxes.

All the samples were labeled and a copy of the results of analysis was sent to the facility.

APPENDIX 3

DOCUMENTATION INSPECTION

For the examination of records two accountants were appointed. To achieve the best results, it is suggested that the qualification of industrial accountant is necessary. The records which were examined during the inspection period for three hours are as follows:

- Feed-stocks including quantity in storage and the quantity used in the process and the quantity received.
- End product and byproduct records including quantity of output and quantity delivered to the users and the quantity in storage.
- Records and analytical results from waste treatment analysis.
- Records of the purity analysis of the raw materials and the product.
- Records of the quantity of waste resulting from the process.
- Examination of the raw material requires form, price and sales records.
- Batch times.
- Examination of the measuring instruments records.
- Examinations of the utilities consumption (no reliable records were kept).

For the analysis of the above factors, the records of a period of three months were available and no records were removed from the facility.

LANGUAGE

It is to be noted that most of these records were in Persian.

APPENDIX 4

UTILITIES

For the inspection of the utilities production department, two chemical Engineers were appointed.

- The location of the units and the equipment were checked against the documents provided in the initial visit.
- The utilities consumption figures from the instruments were recorded.

The water consumption figure was not reliable due to the failure of the instruments. The sign and capacities of the equipment used for water purification systems.

APPENDIX 5

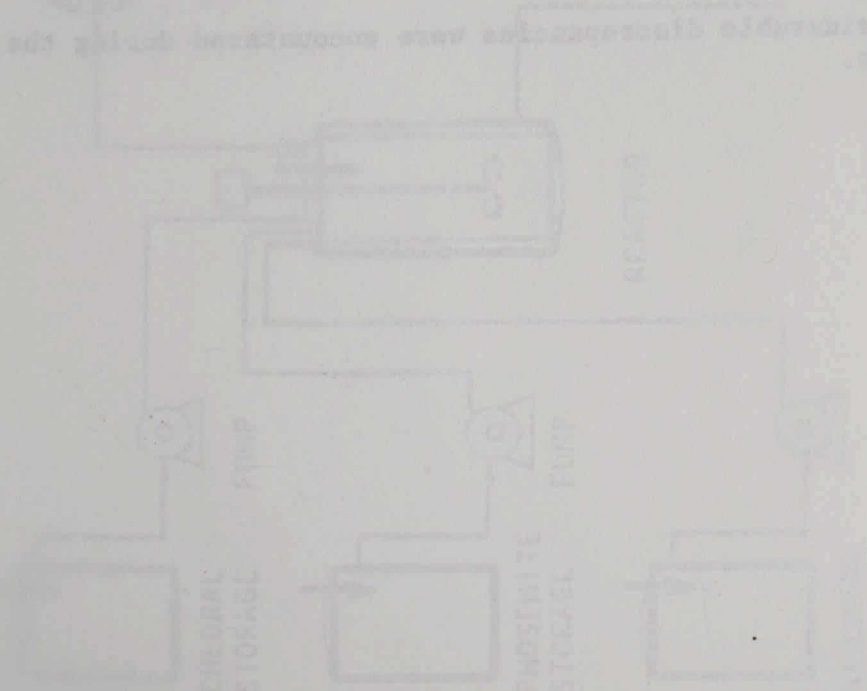
MILITARY EQUIPMENT

For the detection and monitoring of the existence of toxic warfare agents, a team of four from NBC defence establishment together with their appropriate instruments were appointed. They monitored the air in the storage area, reactor area, separation area, product holding tanks area and the product storage area. For such purpose they employed four individual and different pieces of equipment.

The results of these examinations were provided in the appropriate forms.

The information included in the forms are: the site of sampling, the time, the chemical to be detected, the name of the equipment tested, the time duration for revealing results, the humidity, the quantity of the chemical in the air, in ppm, the temperature of the site and the pressure of the air.

In these experiments, the non-existence of Nerve Gas warfare agents was to be verified.



APPENDIX 6

SAFETY MEASURES

During the inspection, the inspectors observed the safety rules and regulations adopted at the facility and checked them against the standard rules. Also the workers in the process area, raw material storage area, product storage area were interviewed about the possible sicknesses in the past and also a sample of their blood were taken for further examination off-site. These results were available in four days. The colinstrasse of the worker's blood was checked by using appropriate kit. The individual safety measures applied in the facility against gases and particles were analyzed. There was no continuous monitoring system for toxic gases in the facility area.

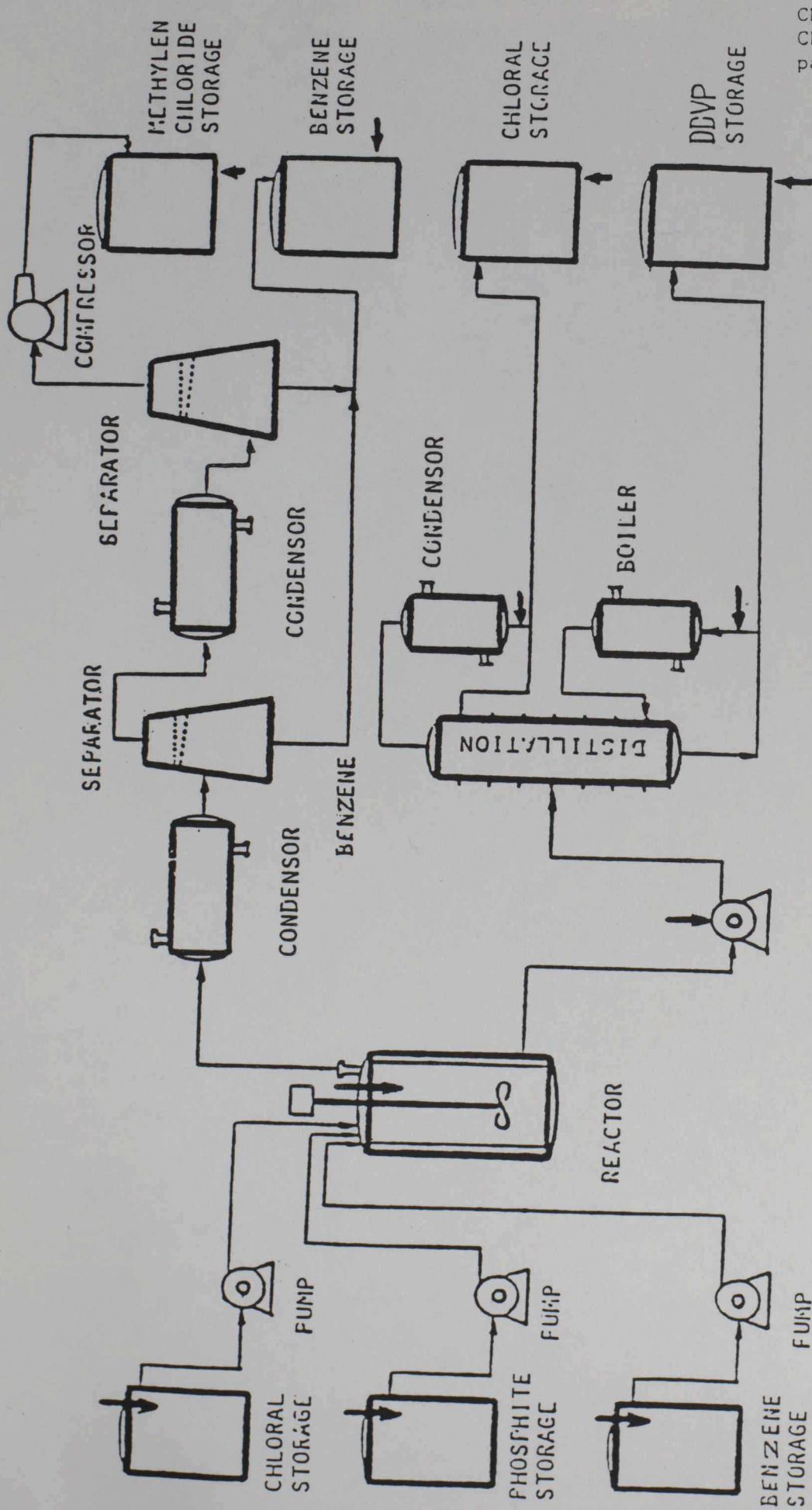
Also some filters from air conditioning system were taken to be analyzed off-site. The medical records of the workers were examined and no misleading absence was observed.

RESULTS

The results obtained by the National Trial Inspection (NTI) exercise carried out in one of the chemical plants producing DDVP (a non schedule chemical) by using trimethyl phosphite (a schedule [3] chemical) show that:

- The process is in accordance to what it was declared.
- No other chemicals except those in declaration, were encountered during the analysis of samples.
- No warfare agent was detected on site mobile GC/MS and the analysis carried out off-site by the military equipment.
- No considerable discrepancies were encountered during the analysis of records.

FIG(1), PROCESS DIAGRAM OF DDVP PRODUCTION UNIT



➔ POINTS OF SAMPLE TAKING

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