



**OPCW**

**Conference of the States Parties**

Second Review Conference  
7 – 18 April 2008

RC-2/NAT.7  
8 April 2008  
Original: ENGLISH

**THE REPUBLIC OF KOREA**

**PROPOSAL FOR ENHANCING THE EFFICIENCY AND COST-EFFECTIVENESS  
OF OTHER CHEMICAL PRODUCTION FACILITIES INSPECTIONS**

**A. Background**

1. The OPCW verification system provides assurances for the chemical weapons (CW) destruction process and the chemical industry activities. Both have direct relevance to the non-proliferation of chemical weapons. With progress being made on the destruction of CW, the focus of the OPCW verification system is expected to shift from the phasing out of the CW themselves, to preventing the recurrence of CW.
2. Between the entry into force of the Chemical Weapons Convention (hereinafter “the Convention”), and 1 November 2007, the OPCW conducted 794 inspections of Schedule 1, 2, and 3 facilities and 504 inspections of other chemical production facilities (OCPF). However, the Director-General highlighted in his report for the Second Review Conference, that the inspection efforts carried out so far in the OCPF category still do not provide a sufficient level of assurances for non-proliferation purposes. (paragraph 2.16 of WGRC-2/S/1, dated 27 November 2007)
3. While recognising the necessity of strengthening the OCPF inspections, it should be taken into account that not all of the declared OCPFs are relevant in the light of the purpose of the Convention. The declaration criteria for the OCPF apply a wide coverage while the Technical Secretariat (hereinafter “the Secretariat”) lacks the information to select the most relevant facilities for the inspection purposes. This has led to a waste of limited inspection resources and OPCW budget. It would significantly augment the efficiency of the OCPF inspections if chemical industries are encouraged to provide additional information which enables the Secretariat to focus on pertinent facilities.
4. A number of OCPFs have technological features that could easily and quickly be re-configured for the production of scheduled chemicals, while the percentage of inspections remains comparatively low (paragraph. 2.16 of WGRC-2/S/1). In this regard, there is a clear need to maintain the steady increase of OCPF inspections while, at the same time, further optimising current verification procedures to increase efficiency and cost-effectiveness.



**B. Improvement measures for the inspection procedures: Introduction of the new format for the preliminary findings (standardisation and simplification)**

5. Currently, preparing inspection reports on preliminary findings is a most tedious and time-consuming job. In order to reduce the administrative burden without damaging the integrity of the report, the format of the preliminary findings can be further standardised and streamlined.
6. The purpose of chemical industry inspections is to make sure that chemicals are produced as declared and that there is no chance for diversion to produce chemical weapons. As such, there is no need for the content of inspection reports to be changed every time. It is feasible and practical to draw up an inspection form (or template) using common checklists, incorporating many common elements from most of the chemical production processes.
7. The proposed format would be based upon the existing format of preliminary findings. Common items of the inspection (for example, reactor size; number of the reactors; connecting lines; utility supply system, etc.) are all listed, for the inspection team could then check the lists and simply mark the corresponding items. This approach would drastically shorten the time of writing preliminary findings.
8. In the example of the format for the reaction field, common lists for the size, quantity, and material of the reactors are made. For each item, more detailed columns for further details can be also allocated. For special items which are not covered by the detailed columns, it is possible to write additional remarks (see the Annex).
9. By using this standardised form, a more prompt, simple, and, possibly, accurate inspection can be conducted, and the chances of revealing confidential information could be further reduced.

**C. Full utilisation of the sequential inspections**

10. In general, the OPCW inspection team spends around one week on an OCPF inspection (including air travel to the point of entry of the inspected State Party, and transportation to the plant site). Approximately two days are dedicated to actual inspection-related activities, including writing the preliminary findings. If the standardised format for the preliminary findings would be used, one day could be enough, since the drafting of the preliminary findings could be done simultaneously with the inspection.
11. In the cases that OCPF facilities are located in close geographical proximity, two or even three facilities could be inspected in sequence at the expenditure of one single inspection visit. It would result in a dramatic cost reduction. This would furthermore also reduce the administrative and financial burdens of both the OPCW and the inspected State Party.

**D. Additional information for the selection of OCPFs for inspections**

12. The significant number of OCPFs declared by State Parties and the limitations on the maximum number of inspections for each State Party call for a much more selective approach based on risk assessment.
13. However, the plant-site information provided in State Parties' declarations, as required by the Convention, is not specific enough to select more-relevant plant sites. Furthermore, although there have been extensive consultations in the industry cluster on the methodology for selecting OCPF sites, there has been no agreement among State Parties yet.
14. In this regard, it would be beneficial to get additional information from State Parties, especially on the technical characteristics of their OCPFs, such as the convertibility of the processing equipment, coupled with the production that could be used to produce and handle scheduled chemicals.
15. Based on the inspection of OCPFs between 2000 and 2006, the Secretariat found that 14% of the PSF facilities (31 out of 218 facilities) was not so relevant (dedicated continuous) and 55% of the non-PSF facilities (82 out of 148 facilities) was not so relevant (paragraph. 3.179, WGRC-2/S/1).
16. If the Secretariat would be informed that certain OCPFs only have a dedicated continuous production line, the S would be in a much better position to improve current selection methodology for OCPF plant sites.
17. For example, in declaration form 4.1 for the OCPFs, State Parties could agree to insert two more columns with an open check box like "All plants only dedicated continuous production line; Yes  No .

**Conclusions**

18. The relative importance of an effective industry verification regime and strengthened non-proliferation measures will grow as the chemical weapons destruction campaign progresses and the disarmament goal of the Convention is achieved. Effective industrial verification is also a significant contribution to the global fight against terrorism.
19. With the rapid changes in the chemical industry and with the continuing scientific and technological developments, States Parties and the Secretariat have to make a concerted effort to improve and enhance the effectiveness and efficiency of the chemical-industry verification regime.
20. The Republic of Korea proposes that the States Parties and the Secretariat closely examine the merits and feasibilities of our proposal so that they can be implemented in due course.

Annex: New format for the Preliminary Findings (for the exemplary purpose only)

## Annex

**New format for the Preliminary Findings (for the exemplary purpose only)**

## I. Plant Site

- On-site activities and factual findings (part of the preliminary findings)
  - The declared plant site: ABC Chem. Co., Ltd., Somewhere Plant Site
  - Number of production plants: 3
  - Type of products: dyestuffs (DOC/PSF)

Synthesis (with compounding)	Mixing and packing	Compounding (blending)	Others
2	-	-	<b>Dismantled 1</b>

## II. Each plant

- Total number of reactors in production plant: 30

Ventilation	Natural	✓	Local Exhaust	✓	Seal up & Carbon Filtering		Other:
Type of Reactor	Stainless Steel	<b>15</b>	Glasslined Steel	<b>10</b>	Fibre Reinforced	<b>5</b>	Other:
Volume of Reactor	1 m <sup>3</sup>	<b>2</b>	1-10 m <sup>3</sup>	<b>12</b>	10-20 m <sup>3</sup>	<b>6</b>	Other:
Control of Reactor	Manually		Semi-manually (Reading sensors)	✓	Automatically (Control room)		
Type of Equipment	Multipurpose	✓	Dedicated		Other:		
	Batch	✓	Continuous Process		Other:		
Sequence of Process	Reaction	<b>1st</b>	Crystallisation	<b>2nd</b>	Filtration		Grinding <b>3rd</b>
	Distillation		Drying	<b>4th</b>	Mixing (blending)	<b>5th</b>	Packing <b>6th</b>
	Washing		Ripening		Dilution		Other ( )
Type of Final Products	Liquid	✓	Solid	✓	Other:		
Remarks (if any)							