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**THE REPUBLIC OF KOREA**

**ENHANCING THE EFFICIENCY AND EFFECTIVENESS OF  
ARTICLE VI INSPECTIONS  
FOCUSING ON SCHEDULE 3 CHEMICALS AND DOC/PSF FACILITIES**

**Introduction of Sequential Inspections and Improvement of  
Preliminary Findings**

**A. Background**

1. There are numerous industrial chemicals that could be misused for developing and manufacturing chemical weapons. As the globalisation process in the chemical industry and scientific and technological development continue, the risk of vertical and horizontal proliferation of dangerous chemicals will grow. This irreversible trend makes the verification of chemical industry a more complex and challenging task to accomplish.
2. Even if concerted efforts are made by all States Parties to strengthen the non-proliferation measures, it is difficult to increase drastically resources for the industrial inspections under the current circumstances. As of November 2002, the number of facilities for DOC/PSF inspection is 3,982 in 57 countries and 60 of these inspections are planned for the year 2003, which amounts to 1.5% of the total number of these facilities for inspection. A simple calculation shows that, at this rate, it would take more than 50 years to inspect all DOC/PSF facilities at least once. Therefore, enhancing the efficiency and effectiveness of the Article VI inspection regime becomes one of the most important and urgent missions for all of us.

Facilities for inspection in related industry and status of inspections

Type of Facilities	Possessor State Parties	Facilities for Inspection	Number of Inspections (2002)	Inspections planned (2003)
Schedule 1	21	27	9	16
Schedule 2	32	155	21	38
Schedule 3	33	432	23	18
DOC/PSF	57	3,982	32	60
Total	143	4,596	85	132

\* Sources: Basic documentation of National Authorities Meeting in Madrid, Spain, November 2002.  
OPCW Programme and Budget for 2003.



3. Based on our own experience, we would like to propose three concrete ideas to enhance the efficiency of industry inspections, especially for Schedule 3 chemicals and DOC/PSF facilities. The following measures are inter-related and can be taken together.
  - (a) Introduction of the new format for the preliminary findings (standardisation and simplification);
  - (b) Exclusion of office equipment from the inspection equipment; and
  - (c) Sequential inspection for Schedule 3 and DOC/PSF facilities.

**B. Improvement measures for the inspection of Schedule 3 and DOC/PSF facilities**

**4. Introduction of a new format for the preliminary findings (standardisation and simplification).**

- 4.1 In order to reduce the administrative burden without damaging the integrity of the report, the format for the preliminary findings which are filed at the inspection site could be improved and streamlined.
- 4.2 The purpose of inspections of Schedule 3 and DOC/PSF facilities is rather straightforward and simple: to verify that there is no diversion of the subject chemicals for the production of chemical weapons and to check whether there are any discrepancies between the declaration and the results of the inspection. Therefore, the contents of the preliminary findings are more or less uniform, and the format of the preliminary findings could be standardised and simplified.
- 4.3 Hence, if the format of the preliminary findings to be filed at the inspection site had check-lists, it would be much more convenient, time-saving and clear. This new format would also better protect confidential information. An alternative format for the preliminary findings, based upon our experiences gained during the OPCW industrial inspections, is included as an Annex to this document. This format is an example to demonstrate the basic idea of this proposal.
- 4.4 The new format is 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, so that the inspection team could just check the list and complete the preliminary findings. For certain items which can not be described with check-lists (for example, facility operation system; process diagram; product manufacturing flow, etc;), an explanatory note filed by the inspection team during the inspection can be attached to the preliminary findings.

**5. Exclusion of office equipment from the inspection equipment.**

- 5.1 At present, office equipment (three computers, two printers, A4 paper) constitutes a large portion of the inspection equipment of Schedule 3 chemicals and DOC/PSF facilities. The inspection team brings office equipment every time to prepare a report for the preliminary findings.

5.2 However, if the inspection team could use the improved format for the preliminary findings, it would not have to bring such voluminous office equipment, saving the transportation cost of the equipment as well as reducing the burden of the escort team of the inspected State Parties.

## 6. Sequential inspection for Schedule 3 chemicals and DOC/PSF facilities

6.1 In general, the inspection period for Schedule 3 and DOC/PSF facilities is two days (or four days, if time for travel is added). One day is used for the inspection, and another day for writing preliminary findings. On the other hand, if the improved format for the preliminary findings were used, one day could be enough, since the drafting of the preliminary findings would be done simultaneously with the inspection. The Annex on Implementation and Verification to the Chemical Weapons Convention (paragraph 24 of Part VIII and paragraph 20 of Part IX) prescribes that the period for inspection shall not last more than 24 hours; however, extensions may be agreed between the inspection team and the inspected States Parties.

6.2 In most cases, Schedule 3 and DOC/PSF facilities are located nearby geographically. Hence, during the remaining period (approximately one day), the team can inspect continuously other Schedule 3 and DOC/PSF facilities. In this way, two or even three facilities could be inspected in sequence at the expenditure of single inspection visit, resulting in a dramatic cost reduction. This would also reduce the financial and administrative burden of the inspected State Party. It would be beneficial for both parties.

6.3 In 2002, three separate inspections for Schedule 3 and DOC/PSF facilities were carried out at different times in Korea. If the above mentioned sequential inspection had been applied for these inspections, two facilities located in the same city of Yeosu (500 metres apart from each other) could have been inspected during a single inspection period of four days (refer to the cost reduction achieved by sequential inspection at footnote<sup>1</sup>).

### Korean chemical industry inspections in 2002

Facility type	Company	Location	Inspection period
Schedule 3	A	Yeosu	2002. 8.6~9
	B	Yeosu	2002.11.5~9
DOC/PSF	C	Ulsan	2002. 5.1~4

<sup>1</sup> Cost reduction in industrial inspections in the Republic of Korea

Items	Present method	Proposed method (sequential inspection)
Air fare*	€3,500×4 inspections×3 times = €42,000	€3,500×4 inspections×2 times = €28,000
Hotel	€120×4 inspections×3 days×3 times = €4,320	€120×4 inspections×3 days×2 times = €2,880
Interpretation	€1,300×3 times = €3,900	€1,300×2 times = €2,600
Transportation	€400×3 times = €1,200	€400×2 times = €800
Total	€51,420	€34,280
Cost reduction	€17,140	

\*Air fare: Business class common fare (round trip)

- 6.4 For the successful execution of this sequential inspection, the Technical Secretariat (hereinafter “the Secretariat”) and the inspected State Party must reach an agreement within the expected inspection frequencies per year. Through close cooperation and coordination, sequential inspections could achieve a dramatic reduction of the unit inspection cost for Schedule 3 and DOC/PSF facilities.
- 6.5 Also, sequential inspections as explained in this proposal can be executed in two or three neighbouring States Parties, depending on the geographical location of the States Parties. For example, if the Secretariat grouped together Northeast Asian countries such as the Republic of Korea, Japan and China in preparing inspection plans for sequential inspections of Schedule 3 and DOC/PSF facilities, total travel expenses for the inspection team would be reduced greatly.
- 6.6 The savings made by the sequential inspections could be utilised to increase the total number of industrial inspections, in particular of DOC/PSF facilities, which are greatly under-inspected at present.

### **Conclusions**

7. In order to keep up with the rapid changes in the chemical industry and with scientific and technological developments, the 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.
8. 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. In particular, effective industrial verification is indispensable for our fight against international terrorism and meeting the challenges of the new security threat of the twenty-first century.
9. We propose that the States Parties and the Secretariat examine closely the merits and feasibilities of our proposal so that they, might be implemented in due course.

Annex:           New format for the Preliminary Findings

**Annex****New format for the Preliminary Findings****PRELIMINARY FINDINGS**

This document contains the preliminary findings referred to in paragraph 60 of Part II of the Verification Annex to the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction.

Inspection [*insp. Number*] conducted in accordance with paragraph [ ] of Article VI, and Part [ ] of the Verification Annex to the Convention.

The inspected State Party: *[name]* \_\_\_\_\_

Host State (if applicable): *[if applicable]* \_\_\_\_\_

Inspected Facility: *[name]* \_\_\_\_\_

Inspection Dates:

- beginning of the inspection activities *[date]* \_\_\_\_\_

- end of the inspection activities *[date]* \_\_\_\_\_

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ITL Initials: \_\_\_\_\_

ISP Representative Initials: \_\_\_\_\_

**I. ADMINISTRATIVE DATA****I.1. List of inspectors**

No.	Name	UNLP No.	Function
1.			ITL
2.			DTL/H&S Officer
3.			TLO
4.			Admin & Confidentiality Officer

**I.2. Inspected State Party representative(s)**

No.	Names of State Party representative(s)	Function
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

**I.3. Sequence of Events - date and time**

	Event	Date GMT/Local	Time GMT/Local
1.	Arrival of Inspection Team at Point of Entry		
2.	Remittance of Inspection Mandate to the ISP		
3.	Arrival at Inspection Site		
4.	Beginning of Pre-Inspection Briefing		
5.	Completion of Pre-Inspection Briefing		
6.	Beginning of Inspection Activities		
7.	Extension requested/granted		
8.	Completion of Inspection		
9.	Beginning of Post-Inspection Procedures		

**II. ON-SITE ACTIVITIES AND FACTUAL FINDINGS****II.1. Pre-inspection briefing**

Briefing place		
General Information	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>
Current Status	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>

ITL Initials: \_\_\_\_\_

ISP Representative Initials: \_\_\_\_\_

**OPCW Classification  
Sched3 (OCPF) / / /**

Main Activities	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>
Site Layout	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>
Safety regulation	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>
Site tour route	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>
Location	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>
Plot plan	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>
Plant organization	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>
Other	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>

**II.2. Inspection planning**

ISP Accepted	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>
Minor change	Yes, <input type="checkbox"/>	No, <input type="checkbox"/>

**II.3 Inspection Activities/ Factual Findings**Plant site final products

- A.
- B.
- C.

Raw materials

- A.
- B.
- C.

Subject of materials

- A.
- B.
- C.

Check Place/Record

Item	Check	Remarks
Production unit	<input type="checkbox"/>	
Control room	<input type="checkbox"/>	
Process	<input type="checkbox"/>	
Production log Sheet	<input type="checkbox"/>	
Transfer records (Import/Export)	<input type="checkbox"/>	

ITL Initials: \_\_\_\_\_

ISP Representative Initials: \_\_\_\_\_

OPCW Unclassified (Classified)  
Sched3 (OCPF) / / /

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Monthly management records	<input type="checkbox"/>	
Inventory Ledger	<input type="checkbox"/>	
Analysis record	<input type="checkbox"/>	
General Storage areas	<input type="checkbox"/>	
Drum Storage areas	<input type="checkbox"/>	
Loading Stations	<input type="checkbox"/>	
Wastes/Waste water Treatment Areas	<input type="checkbox"/>	
Laboratory	<input type="checkbox"/>	
Maintenance Shop	<input type="checkbox"/>	
Dispensary	<input type="checkbox"/>	
Others	<input type="checkbox"/>	

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ITL Initials: \_\_\_\_\_

ISP Representative Initials: \_\_\_\_\_



OPCW Classification  
Sched3 (OCPF)/ / /

Draft Facility Agreement

Requested <input type="checkbox"/>	not Requested <input type="checkbox"/>
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**III. Pending Issues, ambiguities, uncertainties, if any**

**IV. Cooperation of the Inspected State Party**

Arrival in the Inspected State Party	Unsatisfactory	Satisfactory	Excellent
Transportation and Other Logistics Support			
Inspection Conduct			
Other Comments			

**V. Confidential Information**

Classified <input type="checkbox"/>	Unclassified <input type="checkbox"/>
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**VI. Report of any Incidents in Relation to Inspection Activities**

NONE <input type="checkbox"/>	If any:
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**VII. POE passage, Inspection Equipment and In-Country Logistics**

Activities upon arrival at the POE,  
if any:  
\_\_\_\_\_

Restrictions on the use of Inspection Equipment,  
if any:  
\_\_\_\_\_

may be omitted

**VIII. List of Annexes**

ITL Initials: \_\_\_\_\_

ISP Representative Initials: \_\_\_\_\_

**Annex A LOCATION**

- Precise location, address and geographical co-ordinates of the inspected facility/site note:
  
- GPS Reading is taken at the main entrance of the inspected plant site (the instrument detected four satellites), as follows:

**Annex B LIST OF BUILDINGS, STRUCTURES AND AREAS INSPECTED UNDER THE INSPECTION MANDATE**

No.	Abbreviation	Name	Function
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

**ANNEX C DIAGRAMS, PHOTOGRAPHS AND DOCUMENTS****C.1 Items taken off-site****C.2 Inventory list of the contents of the sealed container left on-site****C.3 List of items reviewed and returned to the ISP**

No.	Record Name/ Designation (Original)	Record Name/ Designation (English)	Confidentiality Classification	Remarks
1.	Pre Inspection Briefing	Pre Inspection Briefing	Unclassified	Document
2.				
3.				
4.				

ITL Initials: \_\_\_\_\_

ISP Representative Initials: \_\_\_\_\_

OPCW Classification  
Sched3 (OCPF)/ / /

## ANNEX D LIST OF SAMPLES TAKEN

**D.1 For on-site analysis**

**D.2 For off-site analysis**

## ANNEX E RESULT OF ON-SITE ANALYSIS AND OTHER MEASUREMENTS

## ANNEX F RECORD OF TAGS AND SEALS

## ANNEX G LIST OF INTERVIEWS CONDUCTED

## ANNEX H EQUIPMENT - RELATED DETAILS

**H.1 Equipment excluded by the inspected State Party at POE**

**H.2 Inspection team equipment and related protocols, if any, used during the inspection**

No.	Equipment type	Equipment ID	Number of units	Remarks
1.	GPS		1	

**H.3 Inspection team equipment decontamination**

**H.4 Other information to be relayed off-site in relation inspection team equipment**

**H.5 Equipment and related protocols, if any, provided by the inspected State Party**

No.	Equipment type	Equipment used for	Number of units	Remarks
1.				
2.				
3.				
4.				

**H.6 Equipment requested to be left behind/destroyed by the inspection team/ISP**

may be omitted

ITL Initials: \_\_\_\_\_

ISP Representative Initials: \_\_\_\_\_

**ANNEX I RECORD OF FINDINGS**

**ANNEX J COMMENTS FROM THE INSPECTED STATE PARTY**

If any:

**IX. SIGNATURE**

These Preliminary Findings have been printed in [xx] copies on [date] in English.

**Inspection Team Leader:**

\_\_\_\_\_  
(Date and Signature)

Notice taken:

In accordance with the provisions of paragraph 60 of Part II of the Verification Annex.

**Representative of the inspected State Party:**

\_\_\_\_\_  
(Date and Signature)

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**ITL Initials:** \_\_\_\_\_

**ISP Representative Initials:** \_\_\_\_\_