



Verification Division
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NOTE BY THE TECHNICAL SECRETARIAT

**REFINEMENTS IN THE CONDUCT OF INSPECTIONS
TO IMPROVE THE CONSISTENCY, EFFECTIVENESS, AND
EFFICIENCY OF THE ARTICLE VI VERIFICATION REGIME**

Introduction

1. The First Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (hereinafter “the First Review Conference”) “encouraged the Council, assisted by the Secretariat, to work toward ... refining inspection conduct to improve consistency, efficiency and effectiveness” (paragraph 7.71 and subparagraph 7.71(c) of RC-1/5, dated 9 May 2003). These objectives were reiterated (paragraph 9.67 of RC-2/4, dated 18 April 2008) by the Second Special Session of the Conference of the States Parties to Review the Operation of the Chemical Weapons Convention (hereinafter “the Second Review Conference”), which underlined the importance of the verification regime for activities not prohibited under the Chemical Weapons Convention (hereinafter “the Convention”), and stressed that efforts to increase the effectiveness and efficiency of the verification regime should continue (paragraph 9.57 of RC-2/4).
2. Increasing efficiencies and ensuring the independence and integrity of the verification process were also among the recommendations made by the Advisory Panel on future priorities of the OPCW (paragraph 50 of S/951/2011, dated 25 July 2011).
3. To this end, the Technical Secretariat (hereinafter “the Secretariat”) should ensure that on-site verification processes achieve the following:
 - (a) accomplish inspection aims in accordance with the provisions of the Convention and with operational instructions;
 - (b) are implemented consistently across the inspected sites; and
 - (c) are conducted with the minimum expenditure of time and effort—thus optimising resources.



Methodology

4. In the period from 2009 to 2012, in addition to its day-to-day commitment to achieving continuous improvement in regard to performance, the Secretariat employed three methods for reviewing the Article VI verification regime:¹
 - (a) a three-year programme of quality review of all types of Article VI inspections. This involved an analysis of 21 inspections conducted in 17 States Parties, including three missions that made use of sampling and analysis (S&A) and two pairs of sequential inspections (four individual inspections), in which Secretariat staff members accompanied the inspection team as observers (that is, one person per inspection). One review was carried out of a Schedule 1 facility inspection, eight of Schedule 2 plant-site inspections, two of Schedule 3 plant-site inspections, and 10 of OCPF² inspections. Thus, a reasonable cross-section of inspections was reviewed. The quality reviews were focused on activities carried out by the inspection teams during the preparation, conduct, and finalisation of inspections;
 - (b) systematic participation by one reviewer in most Article VI inspection debriefings that took place after every inspection. As with the quality-review programme described above, this method primarily aimed at identifying trends or patterns that are not easily seen when inspection and verification activities are being dealt with on a daily basis, and where it is necessary to identify improvements that could be made in order to achieve longer-term benefits; and
 - (c) as part of the project to augment the Verification Information System (VIS) through the development of its capability to identify and analyse policy matters arising from Article VI inspections, the Secretariat carried out a systematic analysis of final inspection reports (FIRs) for the 417 Article VI inspections conducted during 2010 and 2011. The purpose was to reach, in a systematic manner, a better understanding of the issues that had arisen during inspections, shed light on existing on-site verification issues that have not been resolved, evaluate the degree of consistency in the implementation of the verification regime, and contribute to the elaboration of ideas on how to improve efficiency and increase the effectiveness of on-site verification.

Findings and recommendations

Regarding consistency

5. It was observed that inspection teams conduct the same set of activities (a physical inspection of relevant facilities and a review of relevant records) in all sites and ask similar questions, which results in a consistent process. They will not go beyond their mandate, even if the inspected State Party (ISP) offers opportunities to do so (for example, by offering access to irrelevant facilities and/or information). Nevertheless,

¹ While the findings and recommendations laid out in this Note relate to Article VI verification, some of these might also be relevant to Article IV and V verification.

² OCPF = other chemical production facilities

some variances were recorded in the scope of the activities carried out by inspection teams and in the degree of inquisitiveness:

- (a) A review of FIRs showed a good degree of consistency for Schedule 2 inspections. Regarding Schedule 3 inspections, a good degree of consistency with regard to Schedule 3 chemical-process descriptions and equipment details were observed in the FIRs, but there were inconsistencies with regard to the scope of the records review³ and product-group codes.
 - (b) With regard to Schedule 1 facilities, inconsistencies were recorded in the approach taken in regard to the performance of physical inventories, and to the verification of production methods and consumption quantities of precursors.
 - (c) For OCPF inspections, internal variance within the Secretariat in the understanding and application of some of the verification definitions and methodologies was responsible for many of the inconsistencies. Examples of such inconsistencies were the unit and plant definitions and the description (the level of detail) provided for chemical processes at production plants (e.g. 12% of FIRs contained only a slight reference to or no description of such chemical processes) and the scope of the records review (a detailed versus a basic review).
6. The Secretariat started to track issues on which internal variance had been recorded and sought to handle them through the issuance of internal guidelines and by the provision of training to the inspection teams. Some observations have already led to the implementation of corrective and/or additional measures (for example, through the revision of standard operating procedures). In addition, based on the experience gained, the Secretariat revised the Inspection Manual in 2011, with a view to enabling guidance to be provided on the handling of inspection issues in the most consistent way possible. Findings of the review also contributed to the streamlining of procedures related to S&A.
 7. In order to improve the quality of on-site verification reporting, the Secretariat has revised the format of the templates for reports on preliminary findings and FIRs, and has created report templates specific to each part of the Article VI verification regime (S/850/2010, dated 8 June 2010; and S/960/2011, dated 2 September 2011 and Corr.1, dated 20 September 2011). They help to achieve a higher level of consistency by providing guidance about the kind of information expected under each section of the report.
 8. Variances in on-site verification were also observed as a result of differences between States Parties in regard to national legislation and/or escort policies in relation to, for example, the protection of confidential business information—thus impacting the consistency of the level of descriptive detail in the inspection reports.
 9. It was noted that, due to differences in national legislation regarding the declarability of mixtures of discrete organic chemicals (DOCs), plants producing mixtures of DOCs were not declared by some States Parties. Having a common understanding in

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During the review, the Secretariat issued a paper entitled, “Access to records during Schedule 2, Schedule 3, and OCPF inspections”, an informal paper by the Industry Cluster, Rev.1/August 2012.

regard to this issue by all States Parties would contribute to increasing the consistency of the implementation of the verification regime.

10. Some recorded inconsistencies were also attributable to concerns listed as outstanding issues on the agenda of the Executive Council, such as “the scope of the definition of ‘production by synthesis’ under Part IX of the Verification Annex with respect to biochemical and biologically mediated processes” (EC-71/INF.1, dated 11 December 2012). Some States Parties in this regard consider that plants producing DOCs by means of biologically mediated processes fall under the scope of verification activities, whereas others exclude them from declarations.
11. Finally, some provisions of the Convention are not strictly followed by all States Parties, principally because of operational and logistical reasons: For example, the time limit of 12 hours to reach the inspection site after the arrival of the inspection team at the point of entry (paragraph 36 of Part II of the Verification Annex to the Convention (hereinafter “the Verification Annex”)) is not always adhered to, especially in those large States Parties that have a single point of entry.

Regarding effectiveness

12. During the period under review, no uncertainties were recorded. All inspection teams reported fulfilment of mandate aims, even though variances were observed among the policies implemented by States Parties in terms of the access and information provided.
13. Inspection issues reported in 2010 and 2011 dealt exclusively with inaccurate declarations or undeclared data. As demonstrated in Table 1 and Table 2 of the annex, the analysis of FIRs highlighted a high number of discrepancies between declared information and information verified on site for all types of Article VI inspections. In 77% of Article VI inspections conducted in 2010 and 2011, the declared information was inaccurate. Issues requiring further attention (IRFAs) were recorded for eight percent of the discrepancies. Since accurate and complete declarations are significant to the effectiveness of the overall verification regime, the Secretariat intends to draw attention to the discrepancies recorded from on-site verification in the revised Declaration Handbook and during training events for National Authorities, as well as during bilateral meetings or when providing support to improve the timeliness, effectiveness, and accuracy of the declarations.
14. There were no issues reported in connection with the inspection aim that deals with the verification of the absence of any Schedule 1 chemical. Nevertheless, there is still room for improvement in this regard. Indeed, the effectiveness of verification activities can be challenged in this area, since verifying the absence of a Schedule 1 chemical is more complicated than verifying its presence. Confirming the absence of any Schedule 1 chemical implies the conduct of a complete verification of all activities carried out on site. In this context, it was observed that the provision of a broad access to facilities and of high-quality records during inspections significantly enhances the effectiveness of the verification activities.
15. The quality reviews of inspections highlighted the importance of inspection preparation, that is, proper preparation by both the inspection team at the Headquarters and by ISP representatives on site (through the collection of relevant

records in advance, for example), which allowed for the anticipation of difficulties and, consequently, enabled appropriate and effective on-site handling to take place. The effectiveness of preparations could be increased if the inspection teams had more detailed—and reliable—information about the inspected site prior to the inspection. One option would be for the States Parties to submit, in advance and on a voluntary basis, updated information relevant to the conduct of the inspection.

16. The quality reviews of inspections also recognised the importance of a clear, concise and comprehensive pre-inspection briefing (PIB) delivered by the plant-site representatives upon the arrival of the inspection team on site. A PIB that covered all areas relevant to the inspection allowed the team to develop its inspection plan faster and to perform its activities as smoothly as possible. The responsibility for ensuring an effective PIB lies with the ISP.
17. For an effective inspection, it is crucial that the inspection teams can use the whole inspection period to carry out inspection activities, and for them to have the additional 24 hours allowed by the Convention to finalise the preliminary findings report. It was observed that for two percent of the OCPF inspections conducted in 2010 and 2011, the inspection period did not allow enough time for the teams to visit all the declared facilities in large plant sites. In order to allow effective verification of all the relevant facilities in large plant sites, the Secretariat will continue to determine the number of inspectors in the team on the basis of the size of the plant site. In other words, bigger teams than average will be assigned to conduct inspections at larger plant sites. In addition, an inspection team may request an extension of the inspection period, if unexpected difficulties are encountered.
18. Communication by the inspection team, not only with Headquarters staff but also with the escort team and plant site representatives, plays an essential role in the effective conduct of an inspection. Having highly skilled interpreters on site was observed to increase the effectiveness of communication and was recognised as crucial.
19. Since it was observed that awareness within the chemical industry and the level of preparedness and knowledge of escort teams differ greatly among States Parties, the Secretariat will continue to encourage States Parties to give priority to the preparations for inspections. During training of National Authorities, the Secretariat will continue to draw the attention of States Parties to the importance of all the aforementioned issues.
20. The scope of an inspection is limited to the declared plant site. There are no provisions in the Convention for verification-related information not linked to the plant site being communicated to the inspection team by the ISP (e.g. the existence of undeclared plant sites located near the inspected site, which can be the case, for example, when the ISP has not yet fully implemented all the necessary measures to meet its obligations under the Convention). In order to help ensure full and effective implementation of the Convention—while recognising that the inspection is limited to the inspected plant site—the Secretariat intends to continue to use such information not related to the inspection and to explore how to report it more effectively, so that the follow-up activities between the Secretariat and the National Authority of the ISP can be improved. The Secretariat welcomes information submitted in this regard which can contribute to increasing the effectiveness of the verification regime.

Regarding efficiency

21. An important element in reducing the cost of Article VI inspections is to carry out as many sequential inspections (i.e. two inspections during one trip or mission) as possible. Sequential inspections can be conducted either within a State Party or between States Parties. Currently 52 States Parties have agreed to receive sequential inspections and, of these, 47 have agreed to sequential inspections between States Parties. It should, however, be noted that some States Parties have set restrictions on the facilities that can be subject to sequential inspections. These restrictions include the types of facilities and/or the distances between the facilities to be inspected, which reduces the potential efficiency gains and can complicate inspection planning. In 2012, the Secretariat conducted 48 sequential missions (that is, 96 inspections). This number could be increased further, especially if all the States Parties that receive six or more industry inspections per year agreed to the conduct of sequential inspections.
22. In addition, instead of conducting two inspections during a single week as a sequential mission, conducting three or four consecutive inspections in a longer period could be considered, especially in States Parties that receive six or more industry inspections per year or in States Parties that allow sequential cross-border inspections.
23. Since the Second Review Conference, the average size of inspection teams assigned to Article VI inspections has been reduced by 20%. This was mainly achieved by the reduction of team sizes for OCPF and Schedule 3 inspections from three to two inspectors, except for inspections of very large plant sites.
24. While sequential inspections, as well as the reduction of the size of inspection teams, contribute to enhancing the efficiency of on-site verification, the Secretariat is committed to assure that gains in efficiency do not come at the expense of effectiveness.
25. With respect to factors impacting efficiency, it was observed that submission of lists of national holidays significantly helps to avoid situations where inspection schedules have to be modified at the last minute and tickets changed, resulting, inter alia, in additional costs. In this regard, the Secretariat encourages States Parties to duly submit the list of their national holidays and to update it every year, preferably before the beginning of the year.
26. Other ideas could also be explored to increase the efficiency of Article VI inspections, including the following:
 - (a) conducting only one inspection mission at mixed plant sites; this idea was proposed by the Secretariat in July 2012 and is currently being discussed in the Industry Cluster;
 - (b) in large chemical industrial parks, there might be several small plant sites that are operated by the same operator and declared under the same Part of the Verification Annex. The submission of declarations of multiple small plant sites as a single (not too large) plant site (i.e. in a single declaration) would lead to the conduct of a single inspection covering all those plant sites, which would help increase the efficient use of resources and the effectiveness of on-site verification; and

- (c) inspecting all the declared plant sites that are owned or operated by different owners/operators but that are located in the same industrial park in a single mission could be another initiative.

Conclusion

27. While recognising, as was stated by the Second Review Conference (paragraph 9.42 of RC-2/4), that “the OPCW has established a verification system that has been effective in meeting the requirements of the Convention and which continues to gain effectiveness and efficiency”, this Note points out opportunities for further improving the Article VI verification regime. Some of the issues raised by the findings have already been addressed by the Secretariat, but there is still room to further refine the Article VI verification regime (as recommended by the First and Second Review Conferences). While States Parties and the Secretariat can start now to work together on some refinements, the Third Special Session of the Conference of the States Parties to Review the Operations of the Chemical Weapons Convention, which will be held in April 2013, provides a good opportunity for States Parties to review practices and initiate any further action that might be necessary.

Annex: Discrepancies Between Declared Information and Information Verified On Site

Annex

**DISCREPANCIES BETWEEN DECLARED INFORMATION
AND INFORMATION VERIFIED ON SITE**

TABLE 1: OVERVIEW OF DIFFERENCES BETWEEN INFORMATION DECLARED BY STATES PARTIES AND INFORMATION VERIFIED ON SITE IN 2010 AND 2011

Type of Verification Regime	Number of Inspections	Differences Found Between Declared vs. Verified Information	Inspections Resulting in IRFAs
Schedule 1	22	16 (73%)	3 (14%)
Schedule 2	84	70 (83%)	17 (20%)
Schedule 3	59	40 (68%)	4 (7%)
OCPF	252	197 (78%)	1
Totals	417	323 (77%)	25 (6%)

TABLE 2: NUMBER AND TYPES OF DIFFERENCES FOUND BETWEEN DECLARED AND VERIFIED INFORMATION IN OCPF FINAL INSPECTION REPORTS IN 2010 AND 2011

Year	Differences Found Between Declared vs. Verified Information	Number of Plants ⁴	Product-Group Codes ⁵	Product-Group Sub-Codes ⁶	Production Range ⁷	Qualitative Value ⁸
2010	94 (75%)	52 (42%)	33 (26%)	24 (16%)	20 (16%)	15 (12%)
2011	103 (81%)	48 (38%)	36 (28%)	24 (19%)	23 (18%)	16 (13%)
Totals	197 (78%)	100 (40%)	69 (27%)	48 (19%)	43 (17%)	31 (12.5%)

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⁴ Differences found between the number of DOC plants declared by the State Party and the number of plants verified on site

⁵ Differences between the product-group codes that the State Party had declared and the group codes that were verified on site (there was at least one change to the declared product-group code)

⁶ Cases where the inspection team proposed to use or change the product-group sub-codes

⁷ Differences found on site between the production range declared by the State Party and the production range verified on site

⁸ Differences found between the declared name, owner, and address of the plant site and what was verified on site