

First Session Agenda item 51 C-I/DEC.65 22 May 1997 Original: ENGLISH

DECISION

CRITERIA FOR THE CONDUCT OF OPCW/PTS PROFICIENCY TESTING

The Conference

Recalling that the Commission, in its PC-XIII/18, paragraph 7.5, adopted the "Criteria for the Conduct of OPCW/PTS Proficiency Testing",

Bearing in mind that the Commission recommended in paragraph 54.9 of its Final Report that the Conference adopt "Criteria for the Conduct of OPCW/PTS Proficiency Testing",

Hereby:

1. **Adopts** the "Criteria for the Conduct of OPCW/PTS Proficiency Testing",

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Annex

CRITERIA FOR THE CONDUCT OF OPCW/PTS PROFICIENCY TESTING

1. Introduction

One of the criteria for laboratories seeking designation for the analysis of authentic samples is that those laboratories should regularly participate and perform successfully in inter-laboratory proficiency tests (PC-VI/B/WP.4). Criteria for acceptable performance of laboratories in a single proficiency test have been established (PC-XI/B/WP.6, Annex 1) and adopted by the Commission.

Proficiency testing is conducted by the Secretariat. In this process the Secretariat may be assisted by laboratories preparing the test samples and evaluating the results in accordance with the following standard operating procedures (SOPs):

- (a) "Standard Operating Procedure (SOP) for Preparation of Test Samples for OPCW/PTS Proficiency Tests"; and
- (b) "Standard Operating Procedure (SOP) for Evaluation of Results of OPCW/PTS Proficiency Tests".

As these assisting laboratories may be seeking designation for the analysis of authentic samples, their position in respect of their intention to become an OPCW designated laboratory needs to be considered.

In relation to the conduct of proficiency testing this paper addresses the following:

- (a) the role of the Secretariat;
- (b) the number of tests to be performed before applying for designation;
- (c) the evaluation of laboratories for a series of tests; and
- (d) considerations for laboratories preparing the test samples and evaluating the results.

2. The role of the Secretariat

The Secretariat shall inform the proficiency test participants before the test of the purpose and the scenario of the test. After completion of the test by the participating laboratories, the Secretariat has the responsibility for evaluating the results of the proficiency test.

Prior to drawing any conclusions on the performance of individual laboratories participating in the proficiency test, the Secretariat shall make:

- (a) an assessment of the stability, quality and validity of the test samples to assess the applicability of the test; and
- (b) an assessment of the evaluation of the results of the test.

Then the Secretariat shall make a preliminary evaluation based on the "Criteria for Acceptable Performance of Laboratories in Proficiency Testing":

- (a) evaluation of whether each of the participating laboratories fulfils all performance criteria; and
- (b) scoring of the performance of those laboratories fulfilling all performance criteria in accordance with the scoring rules.

The Secretariat shall prepare a preliminary test report based on all above-mentioned data and shall thereafter inform the participants of their performance and shall request comments. The participants shall be given a minimum of one week to inform the Secretariat whether they accept the performance evaluation. The Secretariat shall inform the evaluating laboratory about the comments received concerning the evaluation of analytical data to allow it to take corrective measures if needed and to finalise its report. The Secretariat will finalise its test report on the basis of these results.

3. Number of proficiency tests to be performed before applying for designation

Applications by laboratories seeking designation for the analysis of authentic samples must be based on participation in at least three proficiency tests, and must take into account the following:

- (a) laboratories must have participated in at least three out of the last five proficiency tests; and
- (b) laboratories must have performed successfully in their last three consecutive proficiency tests.

4. The evaluation of laboratories for a series of proficiency tests

Since test scenarios, number of spiking chemicals, samples and matrices vary between proficiency tests, a straightforward addition of scores achieved from different tests will not lead to fair or meaningful assessment of participating laboratories. The evaluation of laboratories over a series of proficiency tests shall be carried out as follows:

- (a) once all the performance criteria have been fulfilled, the scoring rules as presented in "Criteria for Acceptable Performance of Laboratories in Proficiency Testing" shall be applied separately for each proficiency test for measuring the performance in an individual test (see table below);
- (b) the performance of laboratories in an individual test shall be rated as presented in the table below to allow for a comparison of performance in a number of different proficiency tests in a simple and unambiguous way;
- (c) the performance rating for three individual tests shall be combined and shall form the technical basis on which the Director-General may grant designation for the analysis of authentic samples provided that other criteria (quality assurance, accreditation) have been fulfilled; and
- (d) the combined rating shall be used as a basis on which the Director-General shall classify laboratories consistent with their capabilities to support the analytical needs of the Convention.

Table. Method of evaluating laboratory performance.

Performance criteria fulfilled ¹	Identification of chemicals	Performance scoring ²	Performance rating
Yes	Laboratory identifies all chemicals	Maximum score	A
Yes	Laboratory identifies all chemicals except one	Maximum score minus two	В
Yes	Laboratory identifies more than half of the chemicals	Score between zero and maximum minus two	С
Yes	Laboratory misses more chemicals than it identifies	Negative score	D
No		No score	Failure

See PC-XI/B/WP.6 Annex 1, paragraph 2.

For practical application of the scoring rules reference is made to the Note by the Executive Secretary on the Results of the Third Commission Inter-Laboratory Comparison Test: Trial Proficiency Test (PC-XII/B/3).

5. Considerations for laboratories preparing the test samples and evaluating the results

The Secretariat shall consider the laboratories assisting it in preparing the samples or evaluating the analytical results and which are also in the process of seeking designation for the analysis of authentic samples as follows:

- laboratories preparing the samples shall be credited with a maximum performance rating of A (see table) for one proficiency test if the test samples meet the requirements of the "Standard Operating Procedure (SOP) for Preparation of Test Samples for OPCW/PTS Proficiency Tests";
- (b) laboratories evaluating the analytical results shall be credited with a maximum performance rating of A (see table) for one proficiency test if the evaluation meets the requirements of the "Standard Operating Procedure (SOP) for Evaluation of Results of OPCW/PTS Proficiency Tests";
- (c) laboratories cannot use performance rating for preparing the samples or evaluating the analytical results of more than one of their last three consecutive proficiency tests (i.e. laboratories must participate in at least two of the three tests as regular participants); and
- (d) laboratories preparing the samples or evaluating the analytical results cannot participate as regular participants in a given test. However, such laboratories must analyse the samples.

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