Technical Secretariat



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NOTE BY THE DIRECTOR-GENERAL

EVALUATION OF THE RESULTS OF THE SEVENTH OFFICIAL OPCW BIOMEDICAL PROFICIENCY TEST

- 1. The Director-General wishes to inform the States Parties of the results of the Seventh Official OPCW Biomedical Proficiency Test, which was conducted by the Technical Secretariat (hereinafter "the Secretariat") from February to August 2022. The OPCW Laboratory is accredited by the Raad voor Accreditatie (RvA), the Netherlands, to conduct proficiency testing in compliance with the criteria laid down in ISO/IEC 17043. The test was conducted according to the following quality management system documents:
 - (a) "Standard Operating Procedure for the Organisation of OPCW Biomedical Proficiency Tests" (QDOC/LAB/SOP/BioPT01 (Issue 2, Revision 1, dated 25 November 2021));
 - (b) "Work Instruction for the Preparation of Samples for OPCW Biomedical Proficiency Tests" (QDOC/LAB/WI/BioPT02 (Issue 2, Revision 1, dated 25 November 2021));
 - (c) "Work Instruction for the Evaluation of Results of OPCW Biomedical Proficiency Tests" (QDOC/LAB/WI/BioPT03 (Issue 2, Revision 0, dated 22 January 2021)); and
 - (d) "Work Instruction for the Reporting of the Results of the OPCW Biomedical Proficiency Tests" (QDOC/LAB/WI/BioPT04 (Issue 2, Revision 1, dated 25 November 2021)).
- 2. Designated laboratories must, in order to retain their designation, demonstrate once per calendar year that they have maintained their capabilities in a biomedical proficiency test organised by the Secretariat, unless the additional guidelines in the annex to decision C-20/DEC.4 (dated 2 December 2015) are applicable.
- 3. The OPCW Laboratory prepared the test samples, and one laboratory offered to assist the Secretariat in conducting the Seventh Official OPCW Biomedical Proficiency Test: the Verification Laboratory, Defence Medical and Environmental Research Institute, DSO National Laboratories, Singapore, evaluated the test results.

- 4. The preliminary evaluation report was discussed at a hybrid meeting held online and at OPCW Headquarters between Secretariat staff and the test participants on 13 July 2022. The participants were given two weeks to comment on the results and to inform the Secretariat as to whether they accepted their performance evaluation.
- 5. The final evaluation report was prepared by the OPCW Laboratory, together with the evaluation laboratory, and sent to all of the participants on 8 August 2022.
- 6. The principal results of the Seventh Official OPCW Biomedical Proficiency Test can be summarised as follows:
 - (a) Twenty-one States Parties nominated 26 laboratories, including the assisting laboratory, to participate in the test.
 - (b) Two laboratories participated in the test on a trial basis; no performance rating was provided for these participants.
 - (c) The assisting laboratory was awarded a performance rating of A.
 - (d) Nineteen regular participants identified and reported, with sufficient analytical data, all of the four spiking chemicals and received a performance rating of A.
 - (e) One regular participant identified and reported all of the spiking chemicals; however, not all analytical data were accepted and they received a performance rating of B.
 - (f) Two regular participants did not identify or report any of the spiking chemicals and received a performance rating of D.
 - (g) One regular participant did not submit a test report and received a performance rating of $F^{\dagger 1}$.
 - (h) There were 20 As, one B, two Ds, and one F^{\dagger} in the test performance ratings for the regular participants, including the assisting laboratory.
- 7. The final results for all of the laboratories participating in the test are presented in the table annexed hereto.
- 8. The participating laboratories are reminded that if they have made any errors or reported false positives or false negatives (arising from a failure to find a spiking chemical or to provide sufficient supporting data for a chemical that is found), they should take immediate remedial action. Before participating in the next test, each such laboratory is required to submit a detailed follow-up report to the Secretariat stating the cause of the problem and any remedial action it has taken. Any such laboratory failing to submit the required report, including details of the remedial action it has taken, will not be permitted to participate in the next biomedical proficiency test.

Annex: Final Results of the Seventh Official OPCW Biomedical Proficiency Test

 $^{^{1}}$ F^{\dagger} indicates failure of the test because the analytical report was not submitted within the test period (see QDOC/LAB/SOP/BioPT01 §23.1).

Annex

FINAL RESULTS OF THE SEVENTH OFFICIAL OPCW BIOMEDICAL PROFICIENCY TEST

| Laboratory (Participant Code) | No. of Spiking Chemicals Reported ² | No. of Chemicals Scored | Rating | Comments |
|------------------------------------|---|-------------------------------|--------|---------------------|
| Australia | 4 | 4 | A | - |
| Defence Science and Technology | | | | |
| Group | | | | |
| (13) | | | | |
| Chile | - | - | - | Trial participant |
| SERVITOX Ltda | | | | |
| (25) | | | | |
| China | 4 | 4 | A | - |
| Laboratory of Toxicant Analysis, | | | | |
| Academy of Military Medical | | | | |
| Sciences | | | | |
| (22) | | | | |
| China | 4 | 4 | A | - |
| Laboratory of Analytical | | | | |
| Chemistry, Research Institute of | | | | |
| Chemical Defence | | | | |
| (31) | | | | |
| Czech Republic | 0 | 0 | D | None of the spiking |
| Katedra toxikologie a | | | | chemicals were |
| vojenskéfarmacie | | | | reported |
| (23) | | | | |
| Denmark | - | - | - | Trial participant |
| Danish Emergency Management | | | | |
| Agency | | | | |
| (09) | | | | |
| Finland | 4 | 4 | A | - |
| Finnish Institute for Verification | | | | |
| of the Chemical Weapons | | | | |
| Convention (VERIFIN) | | | | |
| (11) | | | | |

² The spiking chemicals were as follows:

Sample P073 O-Cyclohexyl methylphosphonofluoridate, GF Sample P074 O-Cyclohexyl methylphosphonofluoridate, GF

Sample P075 O-Ethyl S-2-diisopropylaminoethyl methylphosphonothiolate, VX Sample P077 O-Butyl S-2-diethylaminoethyl methylphosphonothiolate, CVX

| Laboratory (Participant Code) | No. of Spiking Chemicals Reported ² | No. of Chemicals Scored | Rating | Comments |
|--|---|-------------------------------|----------------|--|
| France DGA Maîtrise NRBC, Département Analyse Chimique (26) | 4 | 4 | A | - |
| Germany Institute of Pharmacology and Toxicology (07) | 4 | 4 | A | - |
| Hungary Hungarian Defence Forces Medical Centre (17) | 4 | 4 | A | - |
| India Biochemical Verification Division (BVD), Defence Research and Development Establishment (08) | 4 | 4 | A | - |
| Iran (Islamic Republic of) Defense Chemical Research Laboratory (19) | 4 | 4 | A | - |
| Japan National Research Institute of Police Science (18) | 4 | 4 | A | - |
| Morocco Forensic Laboratory of National Security (06) | - | - | F [†] | F [†] indicates failure of the test because the analytical report was not submitted within the test period (see QDOC/LAB/SOP/ BioPT01 §23.1). |
| Netherlands TNO Defence, Safety and Security (21) | 4 | 4 | A | - |
| Republic of Korea Chemical Analysis Laboratory, CBR Directorate, Agency for Defense Development (04) | 4 | 4 | A | - |

| Laboratory (Participant Code) | No. of Spiking Chemicals Reported ² | No. of Chemicals Scored | Rating | Comments |
|---|---|-------------------------------|--------|---|
| Republic of Korea CBRN Research Center, ROK CBRN Command (02) | 4 | 3 | В | Data provided for one chemical were insufficient for scoring |
| Russian Federation Laboratory for the Chemical and Analytical Control of the Military Research Centre (30) | 4 | 4 | A | - |
| Russian Federation Laboratory of Chemical Analytical Control and Biotesting, Research Institute of Hygiene, Occupational Pathology and Human Ecology (14) | 4 | 4 | A | - |
| Singapore Verification Laboratory, Defence Medical and Environmental Research Institute, DSO National Laboratories (01,15) | - | - | A | Evaluating laboratory |
| Sweden Swedish Defence Research Agency, FOI (28) | 4 | 4 | A | - |
| Türkiye University of Health Sciences, Department of Medical CBRN Defense (27) | 0 | 0 | D | None of the spiking chemicals were reported |
| United Kingdom of Great Britain and Northern Ireland Defence Science and Technology Laboratory, Porton Down (12) | 4 | 4 | A | - |
| United States of America Centers for Disease Control and Prevention (16) | 4 | 4 | A | - |

| Laboratory (Participant Code) | No. of Spiking Chemicals Reported ² | No. of Chemicals Scored | Rating | Comments |
|----------------------------------|---|-------------------------------|--------------|----------|
| United States of America | 4 | 4 | \mathbf{A} | - |
| DEVCOM Chemical Biological | | | | |
| Center, Forensic Analytical | | | | |
| Laboratory | | | | |
| (20) | | | | |
| United States of America | 4 | 4 | A | - |
| U.S. Army Medical Research | | | | |
| Institute of Chemical Defense | | | | |
| (24) | | | | |