OPCW **Technical Secretariat**

International Cooperation and Assistance Division
S/996/2012
17 February 2012
ENGLISH AND SPANISH only

NOTE BY THE TECHNICAL SECRETARIAT

COURSE ON THE ANALYSIS OF CHEMICALS RELATED TO THE CHEMICAL WEAPONS CONVENTION IN THE FRAMEWORK OF OPCW PROFICIENCY TESTING MADRID, SPAIN 21 MAY – 1 JUNE 2012

1. The Technical Secretariat (hereinafter "the Secretariat") of the OPCW wishes to invite applications from representatives of laboratories in Member States in the Latin America and the Caribbean region to attend a course on the analysis of chemicals related to the Chemical Weapons Convention (hereinafter "the Convention"), and related compounds, and on how the results of these analyses are reported during OPCW proficiency testing. The course will be held at Laboratorio de Verificación, LAVEMA, del Instituto Tecnológico La Marañosa, Madrid, Spain, from 21 May to 1 June 2012.

2. The course will be organised by Laboratorio de Verificación, LAVEMA, del Instituto Tecnológico La Marañosa with the support of the OPCW. The course is intended both for laboratories that are active or plan to become active in the analysis of chemicals related to the Convention, and for those that are participating or intend to participate in OPCW proficiency testing.

3. The goal of the course is to improve participants' practical skills in analysing chemicals related to the Convention using gas chromatography (GC) and gas chromatography-mass spectrometry (GC-MS). Participants will first be given an introduction on the chemicals related to the Convention, sample preparation techniques, and on the theoretical aspects of GC and GC-MS. Following the introduction, they will be introduced to sample analysis using GC equipment with different types of detectors as well as GC-MS equipment. A discussion will then take place on how to interpret the mass spectra that have emerged as a result of the analyses. The participants will also familiarise themselves with how to maintain these instruments in a manner that ensures a high standard of performance. Finally, they will be instructed on how to report these results during OPCW proficiency tests. The skills provided by the course may be utilised in analysing different types of environmental samples containing various types of chemicals.

4. The course will consist of the following elements:

   (a) the preparation of environmental samples;

   (b) the properties of Convention-related chemicals;

   (c) an introduction to GC and GC-MS equipment;

   (d) the interpretation of mass spectra;

   (e) exercises on sample preparation;

   (f) the use of GC and GC-MS equipment;

   (g) an introduction to the Convention and related compounds synthesis;

   (h) an introduction to HPLC-MS;

   (i) exercises in quality assurance and the maintenance of instruments; and

   (j) reporting results during OPCW proficiency tests.

5. The course will accommodate a maximum of 12 participants from Member States in the Latin America and the Caribbean region. The Secretariat will select participants in consultation with Laboratorio de Verificación, LAVEMA, del Instituto Tecnológico La Marañosa, and will notify the successful candidates, who will then receive an official invitation to participate from the Secretariat.

6. For all participants, the Secretariat will cover the costs of international travel, medical insurance, and visas, and will provide a terminal allowance, as well as a daily allowance to cover meals, and incidental expenses in accordance with OPCW rules. When making international-travel arrangements, the Secretariat will seek the most economical options. It will purchase tickets and send either the tickets themselves or prepaid-ticket advice to participants. The Secretariat will not cover expenses unrelated to the meeting or that result from unauthorised changes to travel arrangements.

7. Laboratorio de Verificación, LAVEMA, del Instituto Tecnológico La Marañosa will provide accommodation in Madrid for all participants. Information regarding the accommodation will be sent to participants together with the invitation.

8. Participants are requested to obtain any necessary visas before travelling to Spain. As noted above, the Secretariat will cover the costs of visas. It will reimburse participants upon production of original receipts. Information on applying for Schengen visas will be provided to participants once they have been selected.

9. Participants should:

   (a) hold a degree or diploma in chemistry or analytical chemistry from a recognised university/institution;

(b) have at least three years of work experience in analytical chemistry or other relevant fields;

(c) have experience working with either GC or GC-MS techniques; and

(d) be citizens of the Latin American and the Caribbean region Member States.

10. The workshop and exercise will be conducted in Spanish, and no interpretation services of any kind will be provided. Participants are therefore expected to have a good written and oral command of Spanish.

11. Applicants from laboratories in Member States in the Latin America and the Caribbean region are invited to complete the form that is annexed hereto, making sure to provide all the information it requests, including contact details. The completed form, together with a detailed curriculum vitae and a recommendation from the National Authority or the Permanent Representation of the applicant's country, should be sent to Head, International Cooperation Branch, International Cooperation and Assistance Division, OPCW, Johan de Wittlaan 32, 2517 JR The Hague, the Netherlands. Applications may also be submitted by fax to +31 (0)70 416 3279 or by email (with "Spain Course, La Marañosa, 2012" in the subject line) to icb@opcw.org. All applications must be received by the Secretariat **no later than 30 March 2012**.

12. Additional information may be obtained from the International Cooperation Branch, International Cooperation and Assistance Division, at the contact telephone numbers given below.

Ms Boitumelo Kgarebe: +31 (0)70 416 3843
Ms Julia Gonzalez: +31 (0)70 416 3239

Annexes

Annex 1: Draft programme (English only)
Annex 2: Application form (English only)

Annex 1

COURSE ON THE ANALYSIS OF CHEMICALS RELATED TO THE CHEMICAL WEAPONS CONVENTION IN THE FRAMEWORK OF OPCW PROFICIENCY TESTING
MADRID, SPAIN
21 MAY – 1 JUNE 2012

DRAFT PROGRAMME

Time	Activity
Monday, 21 May 2012	
Morning	Registration and administration Introduction to the analysis of chemicals related to the Convention Course overview
Afternoon	Methods for conducting an analysis Convention-related chemicals and their properties ISO 17025
Tuesday, 22 May 2012	
Morning	Analytical strategies in a designated laboratory Tasks and duties of a designated laboratory Convention schedules and related compounds
Afternoon	Sample preparation I
Wednesday, 23 May 2012	
Morning	Sample preparation II , III, and IV
Afternoon	Visit to the laboratory, practical work I
Thursday, 24 May 2012	
Morning	Sample preparation V GC screening
Afternoon	Practical work III
Friday, 25 May 2012	
Morning	GC-MS in electron impact (EI) mode Theory of fragmentation, interpretation of mass spectra of Convention scheduled chemicals
Afternoon	Practical work IV
Monday, 28 May 2012	
Morning	GC-MS in chemical ionisation (CI) mode MS[1] libraries (e-OCAD[2] NIST[3]) AMDIS[4] software GC-MS, tips and tricks
Afternoon	Practical work V

1 MS = mass spectrometry
2 e-OCAD = Electronic OPCW Central Analytical Database
3 NIST = National Institute of Standards and Technology
4 AMDIS = Automated Mass Spectrometry Deconvolution and Identification System

Time	Activity
Tuesday, 29 May 2012	
Morning	LC-MS[5] Micro synthesis of Convention-related compounds
Afternoon	Practical work VI
Wednesday, 30 May 2012	
Morning	Reporting requirements for proficiency tests Example of a proficiency test report Proficiency test templates
Afternoon	Proficiency test simulation
Thursday, 31 May 2012	
Morning	Proficiency test simulation, continued
Afternoon	Proficiency test simulation, continued
Friday, 1 June 2012	
Morning	Proficiency test, presentation of results and discussion Comments and course feedback
Afternoon	Closing ceremony

[5] LC-MS = liquid chromatography-mass spectrometry

Annex 2

COURSE ON THE ANALYSIS OF CHEMICALS RELATED TO THE CHEMICAL WEAPONS CONVENTION IN THE FRAMEWORK OF OPCW PROFICIENCY TESTING
MADRID, SPAIN
21 MAY – 1 JUNE 2012

APPLICATION FORM

Applicants should submit the completed form, along with a detailed curriculum vitae and a recommendation from the National Authority or the Permanent Representation of their State Party to the OPCW, **by 30 March 2012** to:
The Head, International Cooperation Branch, International Cooperation and Assistance Division, OPCW
Johan de Wittlaan 32, 2517 JR The Hague, the Netherlands
Fax: + 31 (0)70 416 3279; e-mail: icb@opcw.org
All documentation must be received **no later than 30 March 2012**.

Please type or use BLOCK LETTERS.

1.	Family name*	
2.	First name(s)*	
3.	Date of birth	Day Month Year
4.	Citizenship	
5.	Gender**	Male ☐ Female ☐
6.	Passport number	
7.	Date of issue	Day Month Year
8.	Expiry date	Day Month Year
9.	Place of issue	
10.	Areas of expertise	
11.	Employer	
12.	Contact address (Please do not give a post-office box number.)	Street
		Number Post code
		City
		Country
13.	E-mail address	
14.	Telephone numbers, including country and city codes	Home
		Work
		Mobile
15.	Fax numbers, including country and city codes	Home
		Work

* Please give the first and family names exactly as they appear in the nominee's passport.
** For this and all similar items, please tick the appropriate box.

16.	Have you previously participated in an exercise of this kind?	Yes ☐ No ☐ If so, when and where?
17.	Do you wish to be sponsored by the OPCW?	Yes ☐ No ☐
18.	Would you like your name to be placed on our database for other courses?	Yes ☐ No ☐
19.	Please briefly describe your practical and work experience, making sure to mention the analytical techniques you are familiar with, and referring to your curriculum vitae as necessary.	
20.	Please list the major items of analytical equipment in your laboratory.	
21.	National Authority/Permanent Representative Endorsement	

Applicant's Signature: _____ Date: _____

- - - o - - -