**Technical Secretariat** 



International Cooperation and Assistance Division S/831/2010 8 April 2010 ENGLISH and SPANISH only

# NOTE BY THE TECHNICAL SECRETARIAT

# BASIC COURSE ON THE ANALYSIS OF CHEMICALS RELATED TO THE CHEMICAL WEAPONS CONVENTION IN THE FRAMEWORK OF OPCW PROFICIENCY TESTING MADRID, SPAIN 14 – 25 JUNE 2010

- 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 Caribbean region to attend a basic 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 the Laboratorio de Verificación, LAVEMA, del Instituto Tecnológico La Marañosa, Madrid, Spain, from 14 to 25 June 2010.
- 2. The course will be organised by the Laboratorio de Verificación, LAVEMA, del Instituto Tecnológico La Marañosa with the support of the OPCW through a voluntary contribution from the Government of Spain. 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 to the chemicals related to the Convention, sample-preparation techniques, and 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 CWC 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 Caribbean region. The Secretariat will select participants in consultation with the 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. The 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 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 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 the 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, 14 to 25 June 2010" in the subject line) to: IntCoopBr@opcw.org. All applications must be received by the Secretariat no later than 19 April 2010.
- 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: Provisional programme
- Annex 2: Application form (English only)

#### Annex 1

## BASIC COURSE ON THE ANALYSIS OF CHEMICALS RELATED TO THE CHEMICAL WEAPONS CONVENTION IN THE FRAMEWORK OF OPCW PROFICIENCY TESTING MADRID, SPAIN 14 – 25 JUNE 2010

#### **PROVISIONAL PROGRAMME**

Monday, 14 June 2010					
Morning	Registration and administration				
0	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, 15 June 2010					
Morning	Analytical strategies in a designated laboratory				
	Tasks and duties of a designated laboratory				
	CWC schedules and related compounds				
Afternoon	Sample Preparation I				
Wednesday, 16 June 2010					
Morning	Sample Preparation II and III				
Afternoon	Visit to the laboratory, practical work				
Thursday, 17 June 2010					
Morning	Sample Preparation IV				
	GC screening				
Afternoon	GC Laboratory				
Friday, 18 June 201	1 <u>0</u>				
Morning	GC-MS (EI)				
	Theory of fragmentation, interpretation of mass spectra of CWC scheduled				
	chemicals				
Afternoon	GC-MS Laboratory				
Monday, 21 June 2010					
Morning	GC-MS(CI)				
	Theory of fragmentation				
	Interpretation of EI and CI mass spectra of CWC-related chemicals				
	GC-MS, tips and tricks				
Afternoon	LC-MS				
Tuesday, 22 June 2010					
Morning	MS libraries (e-OCAD, NIST)				
	AMDIS software				
	Micro synthesis of CWC-related chemicals				
Afternoon	Micro synthesis laboratory exercise				
Wednesday, 23 June					
Morning	Reporting requirements in Proficiency Tests				
	Example of a Proficiency Test report, Proficiency Test templates				
Afternoon					
Thursday, 24 June 2	2010				
Morning					
Afternoon	Proficiency Test simulation				
Friday, 25 June 2010					
Morning	Proficiency Test, Presentation of results and discussion				
Afternoon	Closing ceremony				

#### Annex 2

## BASIC COURSE ON THE ANALYSIS OF CHEMICALS RELATED TO THE CHEMICAL WEAPONS CONVENTION IN THE FRAMEWORK OF OPCW PROFICIENCY TESTING MADRID, SPAIN 14 – 25 JUNE 2010

#### **APPLICATION FORM**

Applicants should submit the completed form, <u>along with a detailed curriculum vitae</u> and a recommendation from the National Authority or the Permanent Representation of their State Party to the OPCW, **by 19 April 2010** 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: IntCoopBr@opcw.org All documentation must be received **no later than 19 April 2010**.

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	Street		
	do not give a post-office	Number	Post code	
	box number.)	City		
		Country		
13.	E-mail address			
14.	Telephone numbers,	Home		
	including country and	Work		
	city codes	Mobile		
15.	Fax numbers, including	Home		
	country and city codes	Work		

#### Please type or use BLOCK LETTERS.

<sup>\*</sup> Please give the first and family names exactly as they appear in the nominee's passport.

<sup>\*\*</sup> For this and all like items below, please tick the appropriate box.

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16.	Have you previously	Yes No
10.	5 1 5	
	participated in an	If so, when and where?
	exercise of this kind?	
17.	Do you wish to be	Yes No
	sponsored by the	
	OPCW?	
18.		Yes No
10.	name to be placed on	
	our database for other	
1.0	courses?	
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.	

 Signature:
 Date:

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