

SWGDRUG Meeting Minutes
New York, New York
July 7-9, 2009

Tuesday, July 7, 2009

Nelson A. Santos, Drug Enforcement Administration, Chair
Scott R. Oulton, Drug Enforcement Administration, Secretariat
Suzanne Bell, West Virginia University
Michael Bovens, European Network of Forensic Science Institutes (ENFSI)
Sylvia Burns, Forensic Science Service, England
Garth Glassburg, American Society of Crime Laboratory Directors
Linda Jackson, MidAtlantic Association of Forensic Scientists
Richard Laing, Health Canada
Jack Mario, Northeastern Association of Forensic Scientists and American Society for
Testing Materials
Jerry Massetti, Northwestern Association of Forensic Scientists and California
Association of Criminalists
Christian Matchett, Southern Association of Forensic Scientists and Georgia Bureau of
Investigation
Ramona Montreuil, Drug Enforcement Administration
Iphigenia Naidis, United Nations Office on Drugs and Crime
Robert Powers, Connecticut Department of Public Safety
Catherine Quinn, Victoria Forensic Science Centre, Australia
Chris Tindall, Metropolitan State College, Denver, Colorado
Scott Vajdos, Southwestern Association of Forensic Scientists and Harris County Medical
Examiner's Office
Eileen Waninger, Federal Bureau of Investigation
Udo Zerell, Bundeskriminalamt, Germany

Not present:

Susan Ballou, National Institute of Standards and Technology
Osama Ohtsuru, National Research Institute of Police Science, Japan
Richard Paulas, Midwestern Association of Forensic Scientists

Introduction

Nelson Santos welcomed the committee members to New York and noted that a quorum was present. He thanked Susan Ballou (not present) and Linda Fitch from Lockheed Martin for the funding and organization of this meeting. Scott Vajdos, Forensic Chemist from the Harris County Medical Examiner's Office, was introduced. Mr. Vajdos was an invited guest representing the Southwestern Association of Forensic Scientists. Ramona Montreuil, Drug Enforcement Administration, was present as the note taker.

Mr. Santos thanked the members for their continued hard work and summarized the three goals of this meeting. The first goal was to finalize the Uncertainty Supplemental Document. The second goal was to review and approve the editorial changes from the last meeting. The third goal was to develop the concept of creating a SWGDRUG Training Manual while keeping in mind collaborating this endeavor with ENFSI. Finally, in light of the recent National Academy of

Sciences (NAS) report, Mr. Santos stressed the increasing importance of maintaining a strong SWGDRUG committee that establishes solid standards for the forensic community.

****Current Activity Updates****

ASTM

**Jack Mario reported ASTM's acceptance of the "Quality Assurance/Uncertainty" document, the "Validation" document as well as the glossary, and the botanical addition. He noted that ASTM is not interested in considering the "Ethics" document at this time. Jack mentioned the publication of a new VIM which redefines several terms referenced in the SWGDRUG glossary. He would highlight the problematic terms for discussion and possible revision at a future meeting.

ENFSI

**Michael Bovens summarized the activities of ENFSI Drugs Working Group. All ENFSI standards and guidelines are available on the Website along with new statistical software. The ENFSI subcommittees finalized an amended version of the "Quality of Sampling" guidelines and a validation report. The final version of the Guideline on the Use of Reference Materials is available for download. An initial outline for the ENFSI Education and Training Manual has been completed which he provided to the SWGDRUG subcommittee on Education and Training.

UNODC

**Iphigenia Naidis presented current and proposed UNODC publications including:

- Guidelines for Representative Sampling-content same as ENFSI document, published in several languages.
- Implementation of a Quality Management System in Drug Testing Laboratories.
- Crime Scene and Physical Evidence Awareness (for non-forensic personnel)--the goal is to develop training modules for crime scene responders; this will be reviewable at the end of August; comments are requested.
- Proposed ENFSI Training Manual--UNODC contributes to the modules, requests simpler protocols for developing nations, UNODC asks for one training manual that is useful and available on an international level.
- UNODC Glossary terms-UNODC requests SWGDRUG members review and provide comments of the glossary terms.

Microcrystalline Use

**Jerry Massetti summarized his activities regarding laboratory use of microcrystalline tests. He polled laboratories in California as well as other western states. His inquiries focused on the following points:

- What frequency does the laboratory use microcrystalline tests?
- How are the results of the tests being used (presumptive vs. confirmatory)?
- Which compounds are tested routinely?
- Has the laboratory's use of the tests diminished over the past years?

The results of his poll indicated diverse and considerable use of microcrystalline tests by forensic laboratories suggesting a need to continue gathering information from which SWGDRUG can base an opinion or recommendation.

CLIC

**Chris Matchett reported that the collaboration between SWGDRUG and CLIC is continuing with the formation of a committee that is in the process of developing a guidance document for the analysis of clandestine laboratory samples. A draft document is already in progress. The anticipated schedule is to have a final document ready for presentation to SWGDRUG by July 2010 and have SWGDRUG adopt the document as a recommendation by July 2011. A CLIC monograph on inorganic analysis is pending.

Chris then asked the committee for comments regarding the following topics:

- Should the document address only actual analysis or should it include safety and testimony?
- Should the CLIC document address inorganic testing? How far does inorganic and precursor testing need to be addressed? What about essential chemicals?
- Is an analytical grid required for each group (controlled, precursors, essential chemicals)?
- Will this document affect training requirements?

Comments included:

- There are 23 chemicals currently under international control. These should be looked at initially to see how the analytical grid applies.
- There are color tests for 22 controlled substances for field ID.
- There are recommended methods for the identification of precursors for laboratories and non-forensic personnel which can be used as a preliminary guideline for the CLIC committee.
- It was recommended that the CLIC document should incorporate as much as possible regarding the use of the established grid.

Finally, Chris intimated that it would be beneficial for the CLIC subcommittee to meet since corresponding via e-mail and conference calls leaves a significant time and communication gap. Nelson indicated that funding may be available for a meeting.

DART

**Scott Oulton initiated a discussion regarding the classification of the Direct Analysis in Real Time (DART) mass spectrometry technique—is it a category A or B? Is clarification required to differentiate soft vs. hard ionization techniques for mass spectrometry techniques? Does the DART provide the same level of discrimination as the “classic impact” instrumentation or does it require MS-MS? Discussion ensued regarding the importance of validation and that in some cases DART can be a category A and in other cases a category B. The committee concurred that it would be helpful to provide clarification in the main document and direct the reader to a supplemental for further guidance. It was noted that specific techniques and instruments should not be delineated in the document, since those instruments may have differing capabilities depending on many factors. The supplemental documents should then be matured to fully explain the possible strengths and limitations of the technique.

Requirement Revisions

**Sylvia Burns presented the revisions regarding the dual sampling requirements where it is no longer compulsory to sample the exhibit twice provided enhanced quality assurance procedures are in place. The concept of the rewrite of Part III, B, was to clarify the need for two separate samplings particularly when hyphenated techniques provided sufficient analytical data to identify the compound and to remove repetition. The committee discussed the proposal and following minor amendment agreed revised wording.

The committee discussed the meaning of the term “reviewable data” and concluded that reviewable data is documentation in various forms including handwritten notes, photographs, and instrumental data. There was also extensive discussion on the possible ambiguity surrounding the “forms” of cannabis. In particular, the wording for cannabis analysis does not explicitly include cannabis “resin”; however, the committee found the document to be complete.

**Linda Jackson reviewed the editorial changes initiated at the last meeting. Additional changes were referred to the Editorial Subcommittee for proper wording. The areas requiring revisions included:

- education requirements
- sampling plan--changes in outline using “frequentist” terminology
- a possible notation regarding VIM references

Uncertainty

**Suzanne Bell reported that the Uncertainty Subcommittee has completed an example for calculating and reporting uncertainty of weights (balance example). The example is ready for committee review and approval. In addition, this supplement can be posted for 60 days for public comment as well as be sent to a metrologist for expert review at the same time.

Training Concepts

**Scott Oulton presented the DEA Web-based Training Program as a possible format for the SWGDRUG recommended training program. The DEA program mandates competency requirements and provides follow-up assessment protocols. Australia’s training program is similar. Nelson Santos and Scott Oulton indicated they will pursue efforts to get copies of the DEA Forensic Chemist Training Program to committee members.

**Richard Laing summarized the Education and Training Subcommittee’s approach for creating a SWGDRUG Training Manual which initiated extensive discussion regarding the training program. The concept points are to:

- create a training program based on defined competencies and skill sets
- train via the competency approach instead of by specific schemes
- provide a flexible training program that when completed will result in demonstrated competency prior to application of the skill
- insure that the standards of competency are the same even though education levels may differ
- allow SWGDRUG, ENFSI, and UNODC to provide recommendations on competency requirements and how to achieve these requirements
- post a training program that is free to access and provides information and materials at no cost
- provide guidance on how to train for specific purposes
- provide referenced materials

**Michael Bovens presented the training recommendations from the ENFSI meeting in Athens, Greece. The ENFSI committee finalized a Table of Contents which reflects an agreement with SWGDRUG in topics and concepts. The ENFSI approach is to provide links to appropriate references without writing original text. Some issues being discussed include copyright problems for links and references and funding difficulties. ENFSI recommends a similar reference based approach for the SWGDRUG training manual.

The consensus of the subcommittee was to develop a training program which is a competency-based model with references designed in a matrix format. Further discussion for the subcommittee to consider included:

- examining a skill-based vs. topics-based approach
- agree on a course that will have flexibility without compromising recommendations or SWGDRUG requirements
- training to a level that is defined by the role in the laboratory
- training to defined levels of competency

It was suggested that the SWGDRUG reach out to the forensic science community for input on topics in an effort to produce a document that can be tailored to each country's or each laboratory's need.

Communications

**Scott Oulton provided an update on the SWGDRUG website activity. Quarterly activity for calendar year 2009 indicates sustained interest in the website. Use of the Home, Approved, and Supplemental sections of the website was most predominant with the DEA website and Google search providing the most referrals. There was no apparent increase in website activity concomitant to the release of the NAS report.

There were significant discussions regarding the NAS report and its impact on the forensic science community in the United States. Jack Mario indicated that the progress of the SWGDRUG committee was recognized at the AAFS conference. The impression of transparency and the committee's international contingency lends important credibility to SWGDRUG and SWGDRUG recommendations. Michael Bovens indicated ENFSI will be reviewing the NAS report and providing a response.

Wednesday, July 8, 2009

Subcommittee Breakout Sessions—the subcommittee members are:

Education and Training: Laing, Quinn, Bovens, Naidis, Massetti, Glassburg, [Paulas (chair)], Vajdos

Uncertainty: Bell (chair), Matchett, Tindall, Zerell, Burns, Mario, (Ohtsuru)

Editorial: Jackson (chair), Waninger, Powers, Santos, Oulton, (Ballou)

Subcommittee recaps:

Education and Training—the subcommittee established the matrix format to organize thoughts, define specific elements, and assign cells in order to identify key narrative paragraphs and references in a systematic and comprehensive manner. The theme of the matrix revolves around defining competency requirements and corresponding assessment phases so that the user will be required to demonstrate abilities and knowledge.

Uncertainty—the example on uncertainty of weights was already finalized. The examples on uncertainty of quantitation are in progress.

Editorial—all prior changes were incorporated into the document. New language was drafted to clarify that the classification of a technique may be lower, if the sample, analyte or mode of operation diminishes its discriminating power.

A definition for “false negative” was added to the glossary. The entire document was reviewed and wording changes were made (e.g., will to shall and should to shall).

Thursday, July 9, 2009

Status

**Dr. Bell presented the uncertainty supplemental for weights, “Measurement Uncertainty for Weight Determination in Seized Drug Analysis”. Committee comments included:

- the interchangeable use of the terms “mass” and “weight” provides for easier reading
- references should be added
- additional examples would be helpful
- clarification of the tare operation in the uncertainty calculation
- the document should be sent to a metrologist for review

A motion was made by Chris Tindall for the committee to post the supplemental document, “Measurement Uncertainty for Weight Determination in Seized Drug Analysis”, for 60 days for public comment.

The motion was seconded by Linda Jackson.

No further discussion.

Motion passed by unanimous vote.

The uncertainty for quantitative measurement with unique scenarios along with additional examples (PTP, control chart) should be ready for review by the next meeting.

**Linda Jackson presented the editorial changes made in an effort to make the entire document more harmonious, less disjointed. There was much discussion on whether the changes were purely editorial or were substantive enough to warrant public review. The committee agreed that the language changes and clarification on two samplings were significant.

A motion was made by Chris Tindall for the committee to accept the editorial changes and to submit for public comment the entire document with the committee accepted changes identified in red text.

The motion was seconded by Garth Glassburg.

No further discussion.

Motion passed by unanimous vote.

**Richard Laing presented an update on the progress made on the proposed SWGDRUG Training Manual. The meld of ideas from both SWGDRUG and ENFSI were introduced including:

- A basic chapter framework
 1. Introduction
 2. Drug knowledge
 3. Analytical techniques
 4. Court testimony
 5. Sample integrity
 6. Quality

This initiated a flow of ideas regarding other possible topics, assessment criteria, the possible impact this manual or guideline may have, and what the final product should be. The value of this endeavor was explored and deemed worthwhile.

The proposed timeline goals are:

- 6 months—Chapters 1-3 should be in draft form and ready for comment by the committee
- next meeting—Chapters 1-3 will be presented for review. At this time, the course of the project will be reevaluated.

**Jack Mario distributed copies of the new VIM definitions from the Joint Committee for Guides in Metrology (JCGM 200:2008). This information was provided for subsequent discussion and possible inclusion into the SWGDRUG Glossary. The Glossary committee will evaluate the new definitions prior to the next meeting. Nelson Santos appointed Eileen Waninger to the Glossary committee to assist present committee members Mario and Ballou.

Proposed Agenda for the next meeting

Date: January 25-29, 2010

Location: To be determined

- Evaluate community responses to posted documents. Scott Oulton will e-mail the public responses to all members after the 60-day comment period.
- Suzanne Bell will circulate additional examples for uncertainty prior to the next meeting. Responses to the uncertainty document as well as the review from the metrologist will be discussed.
- The glossary committee will be prepared to discuss any revisions.
- Nelson Santos will actively recruit representation from South America prior to the next meeting.

Wrap-up

Nelson Santos thanked the committee for their hard-work and diligence in meeting the goals set-forth on at the beginning of the meeting.

Contact either Scott Oulton and Susan Ballou for information regarding reimbursement of travel or per diem related expenses.

Meeting adjourned.

Minutes respectfully submitted by Ramona Montreuil on July 22, 2009.