

**MINUTES OF THE 48th MEETING OF THE HSE
COMMITTEE ON ANALYTICAL REQUIREMENTS
HELD AT HSL, BUXTON ON 27TH OCTOBER 2005**

1. Present

Chairman	Dr J A Groves	HSE, HSL	
	G Bebbington	Casella / Bureau Veritas	
	Mr O Butler	HSE, HSL	
	D Marsh	Astra Zeneca	
	Dr J Morton	HSE, HSL	
	Dr K J Saunders	Keris Ltd	
	Dr D Simpson	RSC	
	M Terrington	Astra Zeneca	
	Mr B Tylee	HSE, HSL	
	Dr G Wilcox	BP	
	Mr M D Wright	HSE, HSL	
	Secretary	Mr A T Simpson	HSE, HSL

Apologies for absence were received for Dr A P Bianchi, Dr J Cocker, J Dobbie, T Joyner, Mr S J Lewis, and Dr P Walsh.

2. Minutes of the previous workshop

The minutes of the workshop held on the 8th June 2005 were accepted with no alterations. All actions had been discharged.

3. CAR Terms of Reference (Document CAR 48/2)

It was suggested that the phrase 'liaison with other organisations' should be included in the terms of reference.

The relationship of CAR with CFM (Committee on Fibre Measurement) should be clarified.

4. CAR Membership (Document CAR 48/3)

Mr Terrington and Mr Marsh would be alternating attendance at future meetings.

It was suggested that someone with microbiological experience should be identified and asked to join the committee.

Ms Woolfenden (Markes International) would be asked to attend committee meetings in future.

Dr Wilcox announced that he would be representing BOHS on the committee in place of Mr Lewis.

5. MDHS Series (Document CAR 48/4)

MDHS 83 'Resin acids in air' in new format

The draft revision of MDHS 83 'Resin acids in air' was accepted with two minor alterations.

Structure of the MDHS Series

No changes should be made to the current MDHS structure (i.e. analytical and non-analytical methods); people look for the MDHS series which could be regarded as a 'brand name'

HSL should investigate migrating MDHS documents to the HSL website so they can be more easily updated.

Viable MDHSs replaced by generic methods, although available at the British library, should be made available on the internet, with a foreword as to their status. Sometime in the future they should be reviewed and put into the new format.

MDHSs do not cover the whole range of analytes; where an appropriate NIOSH or OSHA methods already exist there has been little replication. In such cases, information should be available in a substance list directing people to these methods.

Interest in individual MDHSs should be measured via 'hits' on the website.

Revision of MDHSs

The validation data should be reviewed at the same time in case the original method was produced prior to current performance standards.

MDHS 25 'Organic Isocyanates in air' should be revised to see if the use of impingers could be avoided.

A separate report on the current status of work on methods for Mercury was circulated.

New MDHSs

General support was given for biological and microbiological methods, but no individual subjects were suggested. 'Methods for biological monitoring' were likely to be generic rather than on specific substances.

An MDHS guidance document to BS EN 482 was suggested, however online guidance already exists as well as a recent article in the Diffusive Monitor. This guidance should be publicised more widely. Considering the changes to EN 482, the Eurachem guide (<http://www.measurementuncertainty.org/>) is probably the best reference at the moment to measurement uncertainty.

The forthcoming deadline (the following week) for prEN 482 was discussed. The existing version of EN 482 was said to be not statistically robust, however the revision would be compatible with ambient air and GUM requirements.

The apparent lack of knowledge of this draft standard prompted the suggestion that a report on standards activity should be made as a standing item on future agendas.

A method for estimating exposure to animal allergens (also connected to indoor air) was suggested as a possible new method, however it was believed that methods were being published in the open literature on sensitising proteins. In addition, the MOCLEX project (Measurement of Occupational Allergen Exposure) would be optimising a wide range of methods for measuring occupational airborne exposure to bio-allergens.

Peracetic acid, which is replacing glutaraldehyde as a sterilising agent was also raised. HSL has a method that has not been validated due to problems with setting up a test atmosphere and finding a reference method.

6. Quality (Document CAR 48/5)

a) The development of a scheme similar to MCERTS was considered as a means of improving quality of occupational hygiene measurements, as was the case with the introduction of ISO 17020 for asbestos.

There are believed to be fewer than 10 accredited laboratories for provision of opinion on occupational hygiene.

Appropriate training in occupational hygiene measurement should lead to a qualification. The BOHS training module M102 'Measurement of Hazardous Substances' is more appropriate than MCERTS but contains no practical element; practical skills are developed with mentorship. Operatives should keep a journal of work and retake exams every two years.

Consideration should be given to initiatives such as blind test atmospheres.

b) No firm decision was made on how such a scheme should be implemented, but it was felt that, where appropriate firm's monitoring records and relevant qualifications should be checked.

c/d) Expansion of the WASP/EnACT schemes, possibly including a sampling element was discussed.

There was a possibility that WASP could move into the area of sampling, however labs in the UK cannot be required to take part. (In Belgium, those accredited to ISO 17025 must show performance of measurements to a certain standard.) CAR supported this sampling initiative. It was suggested that UKAS could make competent sampling performance a requirement.

The level of participation in WASP compared to the total number of labs was said to be relatively low (20%). Participation in such a scheme is a requirement for environmental analysis. It was suggested that UKAS should be invited to explain UKAS's policy in this area.

It was suggested that if (smaller) labs were not in an accreditation scheme the results could not necessarily be trusted. A requirement of participation in such a scheme would make UKAS's job easier. CAR felt that HSE and possibly the RSC need to take a strong line here. There needs to be a legislative driver.

e) Considering blind testing of laboratory performance, an element of this was already being incorporated into asbestos testing in the WASP scheme. CAR felt that this could be extended to labs outside the scheme via third parties.

f) Currently excess PT samples from WASP are sold on worldwide, marketed by Promochem.

g) The new WASP Demonstration DVD should be put on the HSL website, free to download. Similar DVDs for fibre measurement and asbestos are planned for the future.

One topic for future consideration was a DVD on sampling, although a priced SKC product already exists. Animated power point presentations may be considered as an alternative format to video.

h) The topic of surface contamination and dermal exposure was discussed.

Without any standard to work to, it is difficult to interpret what measurement results indicate. There is no knowledge on no-effect doses and uptake through the hand. Some pharmaceutical firms have used 'ten times the mass inhaled in a day (at OEL level), divided by 100 cm² (area of the hand)'. An OEL of 100 µg/m³ corresponds to 10 ng/cm², which would be difficult to detect above a background level.

Biological methods could offer an alternative, however some drugs may have up to 15 metabolites. Surface sampling is used in GMP to prove that surfaces are clean. An MDHS on surface sampling is in draft in the new format. There are also US clean room clearance tests available.

7 Current HSE Initiatives

The topics raised at the WATCH committee meeting on 5th/6th October 2005 were briefly reviewed. The minutes are available on the HSE website.

HSE is now focussed on its strategic program, including major hazards, the FIT3 programs and an enabling program (strategic delivery program).

8 Publication of the Minutes

It was agreed that the minutes would be published on the HSL website, however none of the comments noted should be attributable by name.

9 Actions

Redraft terms of reference. (John Groves)

Invite Ms Woolfenden (Markes International), Rob Bettinson (UKAS) and a representative with microbiological experience to attend the next meeting. (Andrew Simpson)

MDHS 83/2 Solder Fume should be submitted for publication. (Andrew Simpson)

Approach HSE about migration of MDHSs to the HSL website. (John Groves)

Place older MDHSs onto the HSL website (Mike Wright)

Publicise guidance to BS EN 482 (Mike Wright) – see below

Investigate the possibility of promoting blind test atmosphere proficiency testing (Barry Tylee)

Explore the options for raising quality in the occupational hygiene measurement sector (John Groves)

Date of Next Meeting

Thursday 27th April at HSL, Buxton.

Appendix

Uncertainty links which are free and online (except Nordtest Handbook):

GUM method FAQ

http://www.gum.dk/e-gumfaq/GUM_FAQ.html

The GUM Workbench software (demonstration) from Metrodata.

<http://www.metrodata.de/>

M3003: The expression of uncertainty and confidence in measurement

http://www.ukas.com/Library/downloads/publications/M3003_complete.pdf

The Eurachem/CITAC Guide, 2nd Ed.

<http://www.measurementuncertainty.org/>

Nordtest: Practical handbook for calculation of uncertainty budgets for accredited environmental laboratories (see contact person on link – document not online)

<http://www.nordicinnovation.net/article.cfm?id=1-834-610>

Nordtest position papers on uncertainty in metrology and testing

http://www.nordicinnovation.net/img/position_paper_31.pdf

http://www.nordicinnovation.net/img/position_paper_51.pdf