



## **Asbestos Technical Bulletin – Issue 1**

As part of UKAS's commitment to providing a valid accreditation service to the asbestos sector UKAS reviews its asbestos-related policies, procedures and requirements on an ongoing basis through the Asbestos Technical Advisory Committee (a list of committee members and summary of minutes are available on the UKAS website [www.ukas.com](http://www.ukas.com)). UKAS also continues to discuss the assessment of the requirements of ISO/IEC 17020, ISO/IEC 17025 and sector-related publications, to ensure a consistent assessment approach, during its regular Asbestos Technical Assessor meetings.

Periodically from April 2010, as need dictates, UKAS will publish Technical Bulletins relating to accreditation within the asbestos sector to ensure all applicant and accredited organisations are aware of any necessary clarifications, interpretations, updates or changes to UKAS policy, requirements where issues have been raised, discussed and agreed at the above meetings. The content of these bulletins will be incorporated into relevant UKAS Publications (i.e. LAB30 and RG8) at their next revision.

The following items are included in this first bulletin:

- [1] Asbestos in soils analysis – screening, identification and quantification
- [2] Priority assessment
- [3] Colour blindness testing
- [4] BOHS P403 Qualification (September 2007)
- [5] Field blank samples
- [6] Asbestos testing – electron microscopy
- [7] Laboratory accommodation / environment – monitoring
- [8] Independence within the 4-Stage Clearance Process – Policy Review:
- [9] Multi-site accreditation and satellite offices
- [10] Asbestos testing of bulk materials – how many samples?
- [11] MDHS 100 to HSG 264 transition for asbestos inspection bodies
- [12] 4SC Preventive action and improvement.
- [13] UKAS Awareness campaign

### **1. Asbestos in soils analysis – screening, identification and quantification**

It is common knowledge that testing laboratories in the UK need to be accredited to ISO/IEC 17025 by UKAS in order to provide an asbestos testing service: This is a specific requirement of CAR: 2006 (Regulations 20 & 21). However, there is an apparent degree of uncertainty regarding the mandatory status of accreditation with respect to analysis of asbestos in soil. Therefore the following points provide clarity on this matter:

- (a) Asbestos in soil is covered by the Control of Asbestos Regulations 2006, and therefore if a laboratory is offering an asbestos testing service with respect to soil samples then accreditation to ISO/IEC 17025 is required.
- (b) If the analysis involves removing defined pieces of asbestos-containing material (ACM) from soil samples and analysing these in accordance with HSG 248 then such analysis will be covered by standard UKAS bulk analysis accreditation. The report shall clearly state the matrix of the sample being that of the ACM. The report shall **not** state soil as the matrix. The contract review process completed prior to undertaking this work shall to ensure the customer is aware of the remit and limitations of this asbestos in bulk material analysis. Staff undertaking the analysis must hold the BOHS P401 qualification (or equivalent) as a minimum, for all aspects of the procedure (including the selection of the defined pieces of ACM).
- (c) If the laboratory is contracted to identify asbestos fibres in soil then it will need to employ additional preparation techniques to those generally employed for ACMs. Therefore the laboratory will have to demonstrate its competence to undertake such preparations to UKAS; where this is not included within the scope of accreditation the laboratory shall seek an extension to scope. Once this activity has been satisfactorily assessed 'soil screening and identification' shall be included on the laboratory's schedule of accreditation. This accreditation for screening of asbestos fibres and identification will appear as a separate entry on the UKAS schedule of accreditation. The resulting reports from this analysis shall state soil as the matrix but cannot report any quantification of the asbestos content. Staff undertaking the analysis shall hold the BOHS P401 qualification (or equivalent) as a minimum.
- (d) Analysis to establish the quantification of the asbestos content again requires additional procedures, and therefore the laboratory shall demonstrate its competence to undertake such preparations to UKAS, which could be by way of an extension to scope. Once this activity has been satisfactorily assessed, 'soil – screening, identification and quantification' shall be included on the laboratory's schedule of accreditation. Staff undertaking the analysis shall hold the BOHS P401 qualification (or equivalent) as a minimum.
- (e) If a laboratory (such as a soil testing laboratory) is visually checking soil for signs of potential ACMs for its own Health & Safety purposes, and this information is **not** being reported to the client, then the laboratory does not need to be formally accredited to ISO/IEC 17025, and the staff involved do not need to hold a formal qualification. **Please note - This process cannot be used to report results to the customer by omission.** For example, by informing a customer that a sample cannot be analysed due to its content immediately indicates the sample as containing asbestos. It needs to be reported that asbestos is suspected **not** confirmed.

## **2. Priority Assessment**

The UKAS approach for this accreditation will continue to use the guidance in HSG227 as the baseline for the assessment, and therefore the Inspection Body methodology should consider the requirements in this document. UKAS needs to ensure that clear, traceable, robust records of dialogue between the inspection body and its customer have been established: This is the key area to assess. Inspection bodies need to demonstrate that the customer has identified the use of the surveyed areas, not the surveyor. A robust assessment is required, and failure by an organisation to produce these records and meet the requirements of priority assessment accreditation will lead to UKAS reviewing the accredited status of this activity.

### **3. Colour blindness testing**

Staff undertaking analysis of asbestos by stereo-microscopy, polarised light microscopy and dispersion staining (e.g. in bulk materials and soils) are required to undertake a colour blindness (e.g. Ishihari) test. Organisations are not permitted to use Ishihara tests that are available on-line, via the internet (LAB 30 April 2008 – clause 7.3.2) or by power point as this may affect the validity of the test.

### **4. BOHS P403 (post September 2007)**

To clarify some queries UKAS has received, the changes made by BOHS to the P403 module in September 2007 did not affect the UKAS policy for staff qualification requirements regarding air monitoring testing. Although consideration was given to UKAS's position on this, it was determined that the changes were not sufficient to provide confidence in the sampling strategies of analysts only holding the P403. Therefore UKAS policy still requires that both the P403 and P404 are held by any person undertaking both sampling / fibre counting air monitoring exercises e.g. reassurance testing, background testing, etc.

### **5. Field blank samples**

It is a requirement for all organisations to ensure staff always expose, prepare, mount and retain a field blank sample for each job undertaken.

### **6. Asbestos testing – electron microscopy**

- (a) LAB 30 clause 6.1 also applies to organisations undertaking asbestos testing by electron microscopy. Authorised staff shall be audited (including witnessing staff undertaking the testing and sufficient oral questioning) once every 12 months as a minimum.
- (b) Lab 30 clause 3.0 – suitable PT schemes are available for laboratories undertaking asbestos testing by electron microscopy and organisations are required by both LAB 30 and UKAS document TPS 47 to participate in an appropriate scheme, where such a scheme is available. As an example, AIMS is one scheme which is deemed suitable by UKAS for asbestos identification testing providers using EM/EDXS in place of PLM (it may not be appropriate for labs that undertake fibre counting by EM/EDXS and only report results as fibre concentrations and then divide into classes such as amphibole, chrysotile, organic etc (as described in the ISO 14966 method) – as these labs do not need to identify individual fibre types)

Note: the Health & Safety Laboratory at Buxton is currently working on developing PT schemes specifically for electron microscopy – contact HSL for details.

- (c) LAB 30 clause 15.1.1 and 15.1.2 – Internal QC schemes need to be established and implemented by organisations undertaking asbestos testing by electron microscopy. All authorised staff must participate in these internal QC schemes.

### **7. Laboratory accommodation & environment- monitoring**

An organisation undertaking asbestos analysis in bulk material samples shall undertake monthly in-house air measurements within the laboratory. The Control of Asbestos Regulations 2006, ACOP para 340, requires an employer (carrying out their own measurements or employee

exposure monitoring) to ensure that employees carrying out this work receive similar training supervision and quality control to those required by ISO/IEC 17025.

Section A2.8 of HSG248 (The Analysts Guide), states “*When the handling of asbestos-containing materials is frequent, airborne exposures should be assessed as required by CAWR. In any case, it is recommended that regular air monitoring (on a monthly basis) is conducted in the preparation/identification area, and that the results are recorded*”.

These points have recently been reviewed and discussed within UKAS, and with the HSE, in response to an appeal against a mandatory finding. The outcome of this review was to confirm the requirement that the monitoring needed to be undertaken in accordance with the requirements of A2.8 of HSG248, i.e. by determining that the concentration of fibres in the atmosphere did not exceed accepted levels. Therefore there is **no change** in policy for assessing this aspect and laboratories are reminded that this monitoring needs to be undertaken either by a UKAS accredited laboratory (for air monitoring / fibre counting) or in-house meeting the requirements of ISO/IEC 17025 and UKAS publication LAB 30 (with supporting documented records to demonstrate compliance).

### **8. Independence within the 4-Stage Clearance Process – Policy Review**

The UKAS process for assessing and accrediting the 4-Stage clearance procedure was developed in consultation with stakeholders in 2004. At that time it was acknowledged that although aspects of the clearance procedure were already covered by ISO/IEC 17025, other aspects were better suited to ISO/IEC 17020 (as inspection activities). Rather than split the accreditation of this procedure between the two standards it was agreed that accreditation would be granted to ISO/IEC 17025, although the key requirements from ISO/IEC 17020 would be built into the assessment. These requirements were published within Guidance for the 4SC pilot project, and later transferred to LAB 30.

LAB 30 Clause 17.2 makes it quite clear that an asbestos analyst cannot undertake clearance work for an organisation with which they have a relationship. In 2009 UKAS decided to review this policy to determine whether or not it was providing confidence in the impartiality of the 4SC procedure. As a consequence a proposal was tabled at the UKAS Asbestos Technical Advisory Committee in July 2009 to revise the existing policy. The proposal, which suggested removing the total prohibition in favour of controlled management, was discussed at length and as no consensus was reached it was agreed to allow HSE additional time to discuss this matter internally.

As one of the primary Regulators in this area, it is important to take account of the views of HSE, whose response was in favour of leaving the policy as it was, on the grounds that independence and impartiality of the analyst is seen as a key element in ensuring external influences are minimised.

The decision of UKAS following this review, taking into account the strong views of HSE and a lack of consensus with the TAC, was not to make any change to the policy as stated in LAB 30. Therefore the UKAS policy on requiring the analyst to be independent of the body commissioning the clearance remains.

### **9. Multi-site accreditation, satellite offices and temporary sites**

Accredited organisations are reminded of the requirements within the UKAS Agreement to inform UKAS of any significant changes within their organisation and operations. Two changes to note here are key staff and location changes. This includes changes in Technical and Quality management and any changes to the operational locations. UKAS must be notified of all offices

associated with the accredited organisation and confirmation that work is / is not undertaken at or away from that office (including any aspects of contract review). The Assessment Manager will then determine if this needs to be included on the schedule of accreditation and included within the 4 year accreditation cycle. UKAS must also be made aware of temporary site office / laboratories set up for longer term contracts (those >8 weeks) e.g. power stations. Please ensure all this information is communicated to your UKAS Assessment Manager as soon as it is known (e.g. staff notice given, contract agreed etc): If unsure of the significance of the change then please bring to the attention of your Assessment Manager. . Further information on multi-site accreditation can be found within UKAS publications TPS 51 & TPS 59 ([www.ukas.com](http://www.ukas.com))

#### **10. Asbestos testing of bulk materials – how many samples?**

This issue was discussed and documented within the UKAS Asbestos Technical Advisory Committee meeting minutes (July 2009), and these minutes are available on the UKAS website. It is included here as a reminder to those organisations undertaking bulk sample analysis. Taken directly from the minutes:

*“UKAS outlined the issue that arose out of a nonconformity raised at a laboratory where staff had been processing up to 150 samples per day (each), although the lab in question had identified this as a problem, the ceiling limit on samples per analyst per day (before investigation was to be undertaken) was deemed not acceptable by the UKAS Team. The first proposed limit – 70 samples / 90 points was rejected by UKAS as unacceptable, this level of work still AVERAGED sample times as 6 mins per sample considering standard breaks in an 8 hr shift, however the laboratory struggled to understand why this was an issue. The additional QC was still being undertaken as per HSG248 however the person undertaking the QC was also undertaking 70 samples per day. It was finally agreed 50 samples / 60 points; however this lab now wants to revert back to 70 samples / 90 points (already previously rejected by UKAS). This was raised and discussed at the Asbestos TA meeting and agreed any laboratory undertaking more than 60 samples and 70 points per analyst would be subject to further investigation and the laboratory to justify the approach / acceptance of this number. This assessment policy has been implemented by all assessors since April 09 however it remains difficult for UKAS to pin this on any requirements of HSG248 (although ISO17025 has requirements with respect to pressure / influence on staff). Feedback from UKAS Technical Assessors includes more guidance in the next review of HSH248 is required and appreciated by all (both UKAS and the testing labs). Time per sample type rather than numbers of samples (this eliminates pressure on staff to multitask and complete numbers of samples and also other testing or surveying work). Assessors are requesting more reanalysis during annual visits – and are finding some issues here, amounts of cargille liquid being used is also checked as is those labs where NAD samples are not being included in the “pointing”. UKAS has already liaised with ATaC w.r.t. ATaC gathering some information from its members on what they believe to be realistic numbers per day per analyst.*

*Members agreed the numbers of 90 -150 samples is not possible and unfair treatment of analysts (which is what HSG248 was trying to avoid with the 40 points guidance). Members also agreed the upper limit does need to be considered.*

*Members agreed more guidance is needed (HSG248 app2 wording needs to be improved) and that the policy currently implemented by UKAS (i.e. 60 samples / 70 points) is acceptable.*

*HSE confirmed that the 40 points was intended to be the maximum, although it does not necessarily read as such. The revised HSG248 will strengthen the language and the revise the points / numbers currently documented.*

*UKAS will continue to assess and investigate further if laboratories consistently analyse >60 samples or >70 points per analyst per 8 hr shift”*

### **11. HSG264 (Survey Guide) Accreditation– transfer from MDHS100**

The UKAS policy and process for this was previously sent to all applicant and accredited asbestos Inspection Bodies, and is also posted on the UKAS website ([www.ukas.com/media-centre/news](http://www.ukas.com/media-centre/news)). This includes a self declaration form for bodies to confirm that they have made the necessary enhancements to their systems and procedures to meet the requirements of HSG264. Once the form is completed and submitted to UKAS an organisation can then report surveys within the new system but accreditation will not be transferred to HSG264 until 03 May 2010. Until that time reports cannot display the accreditation mark but can contain the statement below:

*IB XXX currently holds United Kingdom Accreditation Service (UKAS) accreditation under ISO/IEC 17020 for conducting Types 1, 2 and 3 surveys in accordance with HSE guidance MDHS 100. This guidance was superseded on 29 January 2010 by HSG264 'Asbestos: The Survey Guide'. UKAS is currently managing a transition period to enable surveying organisations to strengthen their procedures in order to comply with the new Guide, culminating in accreditation being updated to include HSG264 at the end of April 2010 for those organisations who have confirmed that they have made the necessary changes. Until this date no accredited surveying organisation shall be in a position to report surveys undertaken in accordance with HSG264 as UKAS accredited, however confidence can still be obtained from the fact that this survey was conducted by an organisation accredited by UKAS for surveying to the former guide (MDHS100).*

### **12. 4SC – queries / complaints preventive action and improvement**

Both UKAS and accredited laboratories frequently receive complaints and queries regarding the discovery of dust / debris in an area previously cleared following the 4SC process. Not all of these complaints are justified, however, without sufficient evidence to demonstrate the area was clean at the time of issuing the certificate of reoccupation, it can be difficult to resolve.

Accreditation to ISO/IEC 17025 includes the requirement to implement preventive actions and improvement initiatives. Organisations should consider implementing a re-inspection programme of analysts work (i.e. revisiting a site immediately or soon after the COR has been issued – to be undertaken more frequently than the LAB 30 requirement to audit staff) and also consider the analysts utilising visual media (photographs / video) to record the cleanliness of the area post stage 4 of the process. Traceability of the date / analyst etc relating to any photographs / video footage does need to be considered.

### **13. UKAS Awareness campaign**

UKAS launched an Awareness Campaign in November 2000 targeted at business and Government. The aim of the Campaign is to raise the profile of UKAS and the value of accreditation and is supported by the Department of Business, Innovation & Skills.

UKAS has made significant progress raising the awareness of accreditation programmes and processes across Whitehall. This has been achieved through many initiatives from senior level meetings, direct mailing of promotional literatures, inter and cross-departmental workshops and presentations, as well as through press relations and events.

With respect to the asbestos sector, UKAS has been actively involved in several road shows, seminars and events within the asbestos industry over the last 24 months and will continue to do so in 2010. In 2009 UKAS produced the promotional document for accredited asbestos inspection bodies. The document "Who should you commission to carry out your surveys for asbestos?" is freely available for download from the UKAS website [www.ukas.com](http://www.ukas.com) within the promotional material and downloads section, and can be forwarded by any accredited inspection

body to accompany documentation relating to bids for tenders / contracts or to send to any prospective customers.

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