

SiLC Newsletter

News update by the SiLC Champion

August 2014

Issue 13

Key Dates for 2014

- SiLC Introduction Day
- 16 Oct - ERM offices, London
- Exam dates
- Round 2 2014 - 1 September 2014
- Round 1 2015 - 16 February 2015

Events - follow the link

- [Geological Society](#)
- [RSC](#)
- [ICE](#)
- [CIWEM](#)
- [IEMA](#)
- [RICS](#)
- [CIEH](#)
- [REHIS](#)
- [AGS](#)
- [CIRIA](#)

In this issue:

LCSDF	1
SiLC Annual Forum	1
The SiLC register—is your name on it?	2
Asbestos in soil	3
C4SL and toxicology	4
Have your say	4

Land Condition Skills Development Framework version 2

SiLC has, with support of the Homes and Communities Agency (HCA) prepared the Land Condition Skills Development Framework (LCSDF) which has been updated recently and version 2 is available for download from the SiLC website. The LCSDF is a capability based system which is intended to complement existing institutional frameworks in supporting an individual's career development; from graduate entry level into an organisation through to chartered status and similar senior level membership of a professional body. The benefits of using this framework include providing a structure for objective decisions to be made in training and recruitment, its integration into a personal development plan and to assist in continuing to raise standards in the sector.



SiLC are introducing a development scheme which will provide an entry level membership scheme to SiLC and a tiered development programme starting at graduate entry level, a level for those working towards chartership and a post chartership level for those working towards SiLC registration. Sitting alongside the different entry levels will be the capability levels set out in the LCSDF.

The recent Land Forum meeting in June 2014 discussed the issue of raising standards in land contamination assessment and the potential implementation of a 'Quality Mark' sign off scheme including how the Land Condition Skills Development Framework may assist in such a scheme. This is now being progress through the Professional Standards Sub-group within the Land Forum.

SiLC Annual Forum



Once again SiLC would like to thank the Royal Society of Chemistry for providing the venue to host the SiLC Annual Forum and to thank

all of the speakers who presented at the event. Dave Middleton, Defra provided an update of the current and recent work in the area of contaminated land being supported by Defra. Hugh Mallet, Buro Happold had only a few slides but prompted a lively discussion after asking attendees to provide a suggested criteria values for benzo(a)pyrene at the Category 4-3, 3-2 and 2-1 levels. Taking out a few outliers from the responses, the results were closer than you may think!

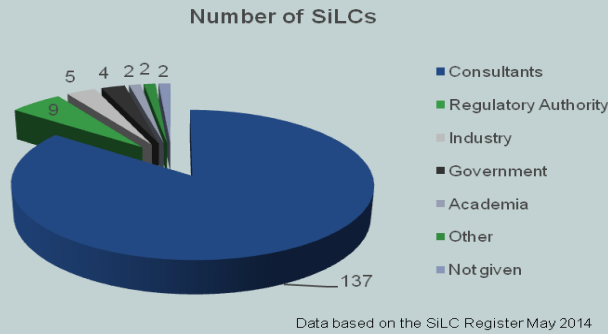
Jane Smith, Public Health England provided an overview of radon issues faced in the UK and Matt Whitehead, Environment Agency, looked as some of the consequences of the winter-spring 2014 floods on contamination issues. Roger Clark gave an update on the now released version 2 of the SiLC Skills Development Framework. All the presentations are available to download from the SiLC [website](#)

SiLC would also like to thank all attendees who completed the on-line questionnaire and we welcome any ideas for topics and on the structure of future forums. Please send your suggestion to info@silc.org.uk or why not post a suggestion on the Linked In SiLC Group so that other SiLCs can provide feedback.



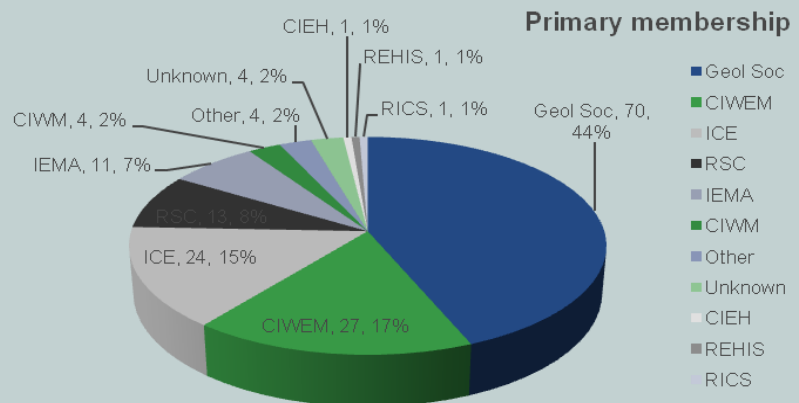
“The top 20 global environmental consultancies that have operations in the UK, have one or more Registered SiLCs”

The SiLC register—is your name on it?



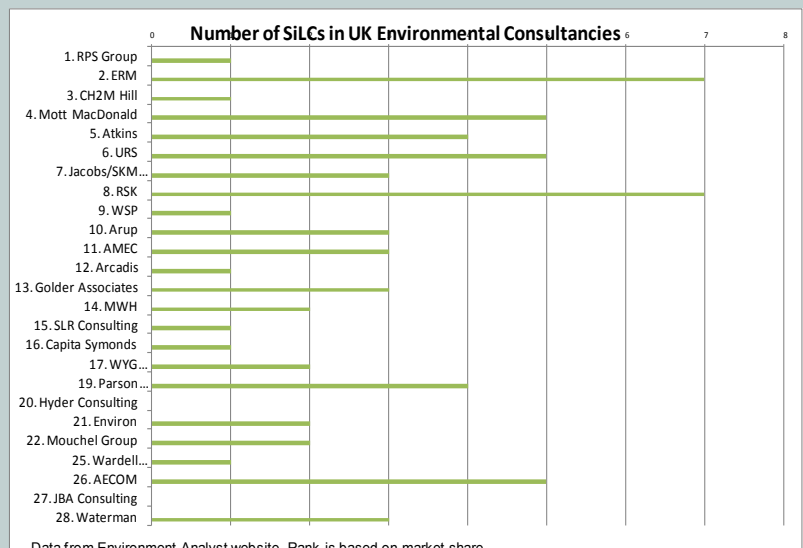
There are currently 160 Registered SiLCs. Whilst the number of SiLCs appears modest, many are senior practitioners in consultancy, regulatory authorities, industry and academia. There are registered SiLCs who are representatives on the Land Forum, the Defra National Expert Panel, members of key steering and stakeholder groups for example C4SL, on the committees of AGS, the Geological Society, SAGTA, SoBRA,

EIC and the current President of CIWEM is a Registered SiLC. The top 20 global environmental consultancies (based on 2012 gross revenues - [EHS Journal](#)) that have operations in the UK, have one or more Registered SiLCs. However, there is a significant number of registered SiLCs who work for small and medium sized companies and therefore these companies have a greater proportion of SiLCs for their size than some of the largest consultancies operating in the UK. Over 80 different consultancies and 12 organisations have a registered SiLCs and many SiLCs are involved in specialist and regional groups of their Professional Organisations and there are even Registered SiLCs in Australia and the Middle East.



Whilst the majority of environmental consultancies have at least one SiLC, some organisation clearly support and value the scheme more than others. ERM and RSK actively promote the scheme within their organisations and this is reflected in the number of registered SiLCs within both companies. Some of the larger engineering based consultancies such as URS, Mott MacDonald and AECOM have a number of SiLCs that is proportional to the size of their market share, whilst others such as RPS, CH2M Hill, WSP and Arcadis have only one SiLC, which is significantly low given the size of the share of the environmental consultancy market, particularly as these organisation are actively involved in the assessment of contaminated land.

There is a role for professionals working in the sector to ensure higher quality standards are delivered and this can be achieved by actively supporting the SiLC scheme and contributing to initiatives such as the LCSDF



Asbestos is soil

The CIRIA document entitled “Asbestos in soil and made ground: a guide to understanding and managing risks” was published earlier this year. The document provides a broad review of information associated with asbestos, in particular the management of asbestos containing materials in soils in site investigation work, risk assessment and site remediation. The document provides an overview of legislation, the effect of asbestos to human health, the mechanisms for the release of asbestos from soils, it outlines the requirements for preliminary risk assessment, describes the sampling and analysis of soils containing asbestos, air monitoring and the analysis of asbestos in air and the process of exposure assessment, the process of risk estimation and risk evaluation and management and remediation options

Legislation associated with the management of asbestos was updated in 2012 with the publication of The Control of Asbestos Regulations (CAR) 2012 and is also covered a range of health and safety regulations. Under CAR 2012 the duty holder has a legal responsibility to carry out an asbestos assessment and where asbestos is identified to prepare an Asbestos Management Plan including risk assessment although this is only necessary where there is an unacceptable risk of asbestos exposure to employees or the general public.

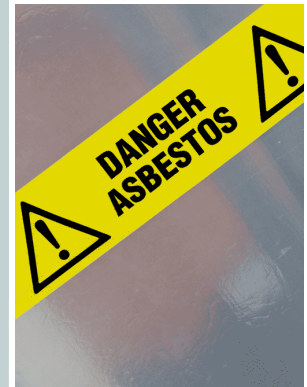
CAR 2012 and associated guidance primarily concern managing asbestos in buildings and do not explicitly mention asbestos in soils. CAR 2012 does specifically cover the ‘curtilage’ of a building, which legally includes the soil at the site. It is stated in an AGS Site Investigation Asbestos Risk Assessment guidance document that “It has been clarified that the CAR2012 regulations apply also to the land included in the premises and not just to any buildings or structures present”.

It is not uncommon to find asbestos containing materials in soils and made ground on brownfield and derelict sites particularly in buried demolition waste. However not all forms of asbestos can be observed in the field for example it may be present as free fibres in the soil matrix which can be observed only under laboratory conditions. CAR 2012 requires that the analysis of samples of materials including soil samples to determine whether they contain asbestos is conducted by a suitably accredited laboratory. The analysis needs to have adequate sensitivity and detection and quantification limits should be no more than 0.001 per cent and include analysis of free fibres and fragments of asbestos containing material.

With regard to the management and handling of soils and made ground which has been identified to contain asbestos the decision as to whether such work is licensed work (LW) or notifiable non-licensable work (NNLW) or non-licensed work (NLW) needs to be made during the CAR 2012 risk assessment. Site investigations and remedial works of sites which are expected to contain asbestos in soils need to be designed to minimise ground disturbance and thereby the potential for exposure to asbestos. It is likely that some remediation work and, occasionally, site investigation work will be LW or even NNLM under CAR 2012.

The CIRIA guidance document expresses that where asbestos is a potential contaminant of concern, additional skills, experience and competencies may be needed order to adequately investigate and assess the potential risks while complying with CAR 2012 and this may include input from asbestos specialists and not just contaminated land practitioners.

Recognising the need for cooperation within industry the Asbestos in Soil Joint Industry Working Group (JIWG) led by CL:AIRE will take account of the information in the CIRIA publication in preparing the industry Code of Practice - Practitioners Guide, drawing upon the services of practitioners from across the sector who have specific practical experience and expertise in a variety of key areas relating to the management of asbestos working collaboratively to develop this guidance. JIWG continues progress on aspects of the proposed Code of Practice which includes research to undertake a soil survey to ascertain background levels of asbestos in urban and rural environments and to research dust/asbestos fibre emission from common site-based activities. It is intended that this data will assist SoBRA with the development of their risk assessment framework which will form part of the JIWG Code of Practice. JIWG also continue to work with the HSE in particular regarding regulatory issues and a need for consultation on the proposed update of HSG 248 covering guidance regarding sampling and analysis of asbestos containing materials and working with AGS regarding updating the their Site Investigation Asbestos Risk Assessment (SIARA), information which will be used in the Code of Practice.



“...Site investigations and remedial works of sites which are expected to contain asbestos in soils need to be designed to minimise ground disturbance and thereby the potential for exposure to asbestos...”



News update by the SiLC Champion

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SiLC Champion Feedback

Do you have something to say about SiLC or any other topics? We would welcome contributions to the Newsletter

Presentation materials about SiLC are available - contact the secretariat

Regards

**Kevin Eaton
SiLC Champion**

Supporting Organisations



How low can you go?

There has been quite a bit of debate recently on social media as to whether Category 4 screening levels (C4SL) are suitable for assessing sites under planning as well as under Part 2A. This largely comes down to the interpretation of the wording in government policy documents although it is worth considering the work of professional bodies who have peer reviewed the science behind previous contaminated land risk assessment when considering how C4SL have been derived and how they may be used.

In 2001, Committee of Toxicology (CoT) reviewed the toxicology approach set out in the Environment Agency CLR9 report (in the form of using a Tolerable Daily Intake for threshold chemicals, or an Index Dose for non-threshold chemicals). An Index Dose uses the principles of minimal risk and this approach was considered further by the Committee on Carcinogenicity (CoC) in 2004. The approach set out in CLR9 was used to publish the first set of SGVs between 2002 and 2005. Following a Government-led review this approach was revised and replaced by Science Report SC050021/SR2: Human health toxicological in 2009, which supported the publication of a second set of SGVs published in 2009 and 2010. The underlying principles of minimal and tolerable risk remained consistent between the two documents. The SR2 report was developed in close collaboration between the Environment Agency, the Health Protection Agency and the Food Standards Agency. HCVs are specific for use in contaminated land assessment for a range of soil contaminants using the minimal risk interpretation of the underlying toxicological evaluation approach. The CoC has published the document Risk Characterisation Methods COC/G 06 although basic principles for defining 'minimal risk' as described in SR2 are still relevant.

At the time of publishing the C4SL further advice from the CoC was still being sought. A meeting was held in September 2013 and the draft minutes of his meeting are available on their [website](#). The CoC considered whether the use of an Excess Lifetime Cancer Risk higher than 1 in 100,000 (e.g. 1 in 10,000 to 1 in 50,000) was appropriate to define an index dose that would represent 'low risk' when defining a C4SL. Due to a number of uncertainties, it was difficult for the CoC to make a generic judgement and in general the CoC prefer that the risk assessment works towards a minimal risk

threshold higher than 1 in 100,000 Excess Lifetime Cancer Risk and concluded that there is no scientific basis for using a default margin smaller than those recommended by CoC to derive a value for Low Level Toxicology Concern. The CoC have a banding system for Margins of Exposure to aid risk communication and the term "Low Risk" is not used in the CoC Margins of Exposure banding.

In SPI010 it is stated (in bold) that **"...As a consequence, toxicological assessments and reviews should only be performed by a suitably qualified individual who sufficiently understands the nature of the toxicological data..."** and the CoT expressed a view that the **"...The framework and derived values would need to be robust in case of legal challenge..."**.

So the question is, are most contaminated land practitioners competent and qualified to develop new C4SLs? It is likely that even some of the larger environmental consultancies will not have a 'suitably qualified individual who sufficiently understands the nature of the toxicological data' particular one who is prepared to defend in-house determined screening levels in the event of a legal challenge.

So whilst it may not be advisable for contaminated land practitioners to evaluate the choice of the toxicological data when preparing a human health risk assessment, the methodology set out in SPI010 regarding the exposure modelling is a good starting point for reassessing generic assessment criteria, after all is it realistic to expect a child in the 21st century to be playing in their garden every single day of the year which is the scenario applied in setting the current SGVs and GACs. Changing some of these 'generic' exposure pathways and frequencies of exposure has been common practice applied by practitioners when preparing 'detailed quantitative risk assessment' and now there is guidance to support the application of this approach in setting GACs.

Have your say

SiLC has established a group on Linked In. It is open to all SiLCs on the register and there are 91 members currently. So if you are a registered SiLC and want to raise any issues, start a debate or flag up what's happening in the sector why not submit a post. All views are welcome on this and how best we can use the group as a means of meaningful communication. Or why not submit an article to the SiLC newsletter

For any formal communication regarding the SiLC scheme please use the e-mail info@silc.org.uk