



## SoBRA & RSC Toxicology Group Conference

### Current Issues in Contaminated Land Risk Assessment

Tuesday 13 December 2016

The Library, Royal Society of Chemistry, Burlington House,  
Piccadilly, London, W1J 0BA

#### Topics that will be covered

- Update on Defra and EA's activities
- Risk toxicology systematic review
- Lead biomonitoring
- Baseline monitoring
- Sources, concentrations and mobility of potentially toxic elements in soil
- Update on SoBRA sub-groups activities

The conference includes a poster display covering a range of key research topics and case studies.

Posters will be available for viewing during refreshment and lunchtime breaks.

We will also hold our AGM in the afternoon. The event will conclude with an early evening drinks reception.



For further information please visit our website at <http://www.sobra.org.uk/events/>.  
Alternatively please e-mail [info@sobra.org.uk](mailto:info@sobra.org.uk)



## Workshop 2016 Site Investigation and Risk Assessment for Historic Landfill Redevelopment

SoBRA held the seventh of its series of summer workshops on the topic of “**Site Investigation and Risk Assessment for Historic Landfill Redevelopment**” at the Engineers House Conference centre in Bristol on 28<sup>th</sup> June 2016

The workshop was highly successful with over 72 delegates. Presentations were delivered in the morning by David Jacob, Charlotte Wakefield and Theresa Cory, Brian Bone, Campbell Reith and Kathryn Warren.

The event was chaired by Lucy Thomas.



### FAST FACTS

82%

Speakers ranked as very good or excellent

92%

Well organised workshop

### FOR MORE INFORMATION

Please visit our Past Events page at <http://www.sobra.org.uk/resources/SoBRA-presentations>

### Afternoon working groups

- Conceptual site model & site investigation
- Controlled waters
- Landfill gas
- Landfill mining

SoBRA would like to take this opportunity to thank again all speakers, delegates and workshop facilitators for another successful event.

### FEEDBACK

We would be grateful if the members who requested vapour intrusion on the feedback forms could contact us via [info@sobra.org.uk](mailto:info@sobra.org.uk) to provide further details on the vapour intrusion aspects they wish to have covered in order to help us plan future conferences and workshops

## Summer Workshop – Landfill Mining Subgroup discussion

The concept was, in general, well received but it is evident that the process is not well publicised yet and knowledge of current examples is still limited, though plenty of discussion of cases where it could be utilised were discussed during the session. A summary of the key points discussed is provided in the table below

### Summary on the key points for landfill mining

- It is estimated there are between 200,000 to 500,000 landfills across Europe that must be dealt with
- Plenty of waste legislation but coordinating guidance note considered worthwhile;
- Identification of and subsequent buy in key stakeholders required as cost benefit unlikely to drive clean-up of landfill purely by money generated from landfill mining.
- Key mechanism seen as redevelopment and costs could be used to offsite development outlay;
- Permitting requirements – could make developers more reluctant (i.e. if waste license still in place post development / likewise if license removal could be incentive);
- Main barriers perceived are lack of awareness, potential timescales, level of current incentives, public relations / perceptions ('mining' negative connotation, what about resource recovery) and Health and Safety (what is in the waste);
- Need of a coordinated approach from groups such as CLAIRE and SoBRA and linked to SuRF considered ideal to promote further awareness and guidance (working with the EA).



CPD certificates have been provided to those that requested one. As with previous events, SoBRA will be publishing a report based on the content of the workshop which will be finalised in Mid-2017.

Members will be notified when it is published and the report will be available for download in the members' area of the SoBRA website (free to SoBRA members). Copies of the presentation delivered at the event are now available on the website.

Please visit our website at <http://www.sobra.org.uk/events>



# National Quality Mark Scheme for Land Contamination Management (NQMS)

By Nicola Harries, CL:AIRE

The aim of this industry led scheme is to ensure that all legislative requirements connected to the management of land contamination are met.

The NQMS is a system designed by the industry led Land Forum to ensure that land contamination management work meets the necessary technical and regulatory standards. It applies in particular to the presentation of environmental information to the regulator in the form of reports, setting out both factual and interpretative information.

Reports are prepared in line with good practice and signed off by a suitably qualified and experienced person registered under the NQMS.



## Suitably qualified and experienced person registered under the NQMS ensures:

- The work has been planned, undertaken and written up by competent people who have relevant experience and/or qualifications in their respective disciplines.
- The underlying data has been collected in line with established good practice procedures and its collection has been subject to control via established quality management systems.
- The data has been processed, analysed and interpreted in line with established good practice and any specific advice provided by the relevant regulatory authorities or regulatory bodies.
- The reports set out recommendations or conclusions that are substantiated by the underlying data and are based upon reasonable interpretations.
- Any limitations in the data or uncertainties in the analysis are clearly identified along with the possible consequences of such limitations.

The scheme is voluntary and the procedure is simple. It has been designed to minimise costs and maximise benefits by operating alongside and within existing quality management systems. The scheme is being administered and supported on behalf of the Land Forum by CL:AIRE and SiLC who are the leading organisations in their field for implementing better regulation initiatives and assessing professional competency. The website is [www.claire.co.uk/nqms](http://www.claire.co.uk/nqms).



Significant economic benefits are achieved by “getting it right first time” without the need for lengthy negotiations and detailed auditing by the regulator. In particular, planning applications submitted under the Town and Country Planning regime should benefit significantly from speedier resolution if NQMS is involved. Use of the NQMS will also assist in the prompt discharge of subsequent planning conditions.

Projects and developments that meet the standards for regulatory compliance incur less costly delays and are not subject to enforcement action. The scheme helps the Local Planning Authorities and the Environment Agency prioritise and maximise the deployment of scarce public resources whilst reassuring the public that land contamination risks have been adequately addressed.

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## Meeting Report ISO TC190, Paris

By Mike Quint,  
Environmental Health Sciences Ltd (former SoBRA chair)



Thanks to having my travel costs part-funded by a SoBRA bursary award, I attended the 2016 meeting of the International Standards Organisation (ISO), Technical Committee (TC) 190 (Soil Quality)<sup>1</sup>. The meeting took place between 24<sup>th</sup> and 28<sup>th</sup> October, in Paris, France, and was hosted by Afnor, the French standardisation organisation. ISO is the international equivalent of the British Standards Institution (BSI), with the membership of TC 190 being drawn principally from representatives of national standardisation bodies (such as Afnor and BSI).

I attended the meeting as the UK’s principal expert on Sub-Committee 7 (SG 7 - Soil and Site Assessment), Working Group 4 (WG 4 - Human Exposure), having been nominated by BSI’s EH/4 Committee (Soil Quality)<sup>2</sup>, on which I represent SoBRA. In so doing, I learnt of the following documents/initiatives that may be of interest to SoBRA members (note acronyms as follows: DIS = Draft International Standard; WD = Working Draft; NWIP/NP = New Work Item Proposal):

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<sup>1</sup> For info, see: [http://www.iso.org/iso/standards\\_development/technical\\_committees/other\\_bodies/iso\\_technical\\_committee.htm?commid=54328](http://www.iso.org/iso/standards_development/technical_committees/other_bodies/iso_technical_committee.htm?commid=54328).

<sup>2</sup> For info, see: <http://standardsdevelopment.bsigroup.com/Home/Committee/50001294>.

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### Update on documents/initiatives

- **ISO/DIS 11504 “Soil quality – Assessment of impact from soil contaminated with hydrocarbons”**. This provides info on TPH fractions etc, similar to TPHCWG. Proceeding to publication.
- **ISO/WD 17924 “Soil quality – Assessment of human exposure from ingestion of soil and soil material – Procedure for the estimation of the human bioaccessibility / bioavailability of metals in soil”**. This will put the UBM method into an ISO standard. Document set to be finalised by the end of November 2016
- **ISO/NWIP 15800 “Soil quality – Characterization of soil with respect to human exposure”**. Draft document has been circulated for comment by early January. Note that this should be of particular interest to SoBRA members and an opportunity exists now to get involved.
- **ISO/NP 21365 "Soil quality – Guidance on establishing conceptual site models for potentially contaminated sites"**.
- **ISO/WD 15799 "Soil quality -- Guidance on the ecotoxicological characterization of soils and soil materials"**. Committee Draft planned for March 2017.
- **Revision to ISO 15175 "Soil quality -- Characterization of soil related to groundwater protection"**. Publication imminent.
- **ISO 18504 - "Guidance on Sustainable Remediation"**. Publication imminent (significant UK involvement).
- **ISO/DIS 19258 - "Soil quality – Guidance on the determination of background values"**. Final draft due in early 2017.
- **Other initiatives on bioavailability/bioaccessibility:** Measurement of bioavailability / bioaccessibility, including a proposal to update ISO 17402 'Soil quality – Requirements and guidance for the selection and application of methods for the assessment of bioavailability of contaminants in soil and soil materials', A proposed NWIP on assessing the bioavailability of trace elements entitled “Soil quality – Use of extracts for the assessment of bioavailability of chemicals in soils – Part 1: Trace elements' a proposed NWIP on assessing the bioavailability of organic chemicals entitled 'Soil quality – Use of extracts for the assessment of bioavailability of chemicals in soils – Part 2: Organic chemicals' and ISO/DIS 16751 entitled ‘Soil quality – Environmental availability of non-polar organic compounds – Determination of the potentially bioavailable fraction and the non-bioavailable fraction using a strong adsorbent or complexing agent’.

Note that as well as being designed for global use, ISO standards can also be implemented at the European level, via the European Committee for Standardization (CEN - which also produces its own standards), and in the UK, via BSI.



Anyone wishing to find out more about the above and / or get involved in developing BSI, CEN or ISO standards relevant to land contamination risk assessment, should join SoBRA’s Standards sub-group, by emailing [info@sobra.org.uk](mailto:info@sobra.org.uk), [Geraint.Williams@alcontrol.com](mailto:Geraint.Williams@alcontrol.com) or [mike.quint@ehsciences.com](mailto:mike.quint@ehsciences.com).



## SoBRA Register of Risk Assessors

By Chris Taylor, National Grid Property

Earlier this year, SoBRA launched their accreditation scheme for brownfield risk assessors. Professionals working in this sector now have an opportunity to demonstrate to their employers and clients, that they have attained a level of recognition for their brownfield risk assessment abilities. There are two tiers of membership and details about the scheme can be found on our website at: <http://sobra.org.uk/accreditation/>.

Registered SoBRA Risk Assessor (RSoBRA)	Fully Accredited Member of SoBRA (ASoBRA)
A person who is capable of undertaking and/or reviewing routine risk assessments without supervision. An RSoBRA is likely to meet the definition of “competent person” under the National Planning Policy Framework (NPPF 2012) in relation to Generic Quantitative Risk Assessment (GQRA) and it is also envisaged that an RSoBRA would be able to support a SQP under the Land Forum’s proposed National Quality Mark Scheme, by undertaking or reviewing GQRAs.	A person with a thorough understanding of land contamination risk assessment, with experience of carrying out and/or reviewing both GQRA and Detailed Quantitative Risk Assessments (DQRA). They are likely to be either (a) senior staff who supervise others and review risk assessment reports, as well as having experience of performing risk assessments themselves or contributing to the development of risk assessment best practice; (b) or senior regulators or others with in-depth experience of providing detailed technical review of reports which rely on the appropriate use of derived site specific assessment criteria (SSAC), presented alongside a DQRA. It is also envisaged that an ASoBRA would be able to support a SQP under the Land Forum’s proposed National Quality Mark Scheme, by undertaking or reviewing both GQRAs and DQRAs.

### Assessment Day

At the end of September, SoBRA held a Scrutineer Assessment day. Our appointed scrutineers are listed on our website at <http://sobra.org.uk/accreditation/list-of-scrutineers/>. As a result of this, we not only successfully appointed 15 Scrutineers, but have also gained valuable feedback about the assessment process. The deadline for the first wave of scheme applicants ended on the 31st October. These applications will now be assessed by our Scrutineers and we are aiming to interview applicants by Feb 2017. After this, we will reopen the scheme to new applicants. Many thanks go to all those who have helped get this scheme off the ground, most notably, the members of the Accreditation Sub-Group.

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# CONTAMINATION EXPO SERIES 2016

## SoBRA at the Contamination Expo Series 2016

The SoBRA stand has experienced an incredible event - the stand was absolutely buzzing and visitors were delighted to find out what the Society is doing and how it can benefit further their career, business activity and personal development. We would like to thank again all our members that give some of their time in looking after the stand and providing information to visitors

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## REMEDiate ITN – European Network focusing on improving management of contaminated sites

REMEDiate is a Marie Skłodowska-Curie Action (MSCA) funded Innovative Training Network (ITN). The network is made up of 10 beneficiaries



from five EU member states - the UK, Ireland, Germany, Denmark, and Italy - and 10 partner organisations. All participants in the project are committed to providing innovative research and training for more cost effective and sustainable remediation of contaminated land.

The network is a multidisciplinary collaboration between internationally renowned research teams from academia and industry, each with complementary expertise in a wide range of site investigation and risk assessment technologies.

REMEDiate network does not address specific remediation technologies but instead addresses the overarching multidisciplinary demands needed for enhanced leadership and decision-making, to ensure that in future the optimal remediation technologies are employed on a site specific basis.



A total of 14 Early Stage Researchers (ESRs) have been recruited and are taking part in a structured and integrated research and training programme to provide them with a highly specific blend of personalised technical and transferable skills.

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Each research project is designed to benefit the contaminated land sector through development of techniques and tools across a range of disciplines relating to site investigation and risk assessment, to provide better informed solutions for remediation.

### Key research project topics include

1. **Environmental chemistry & toxicology approaches to site assessments**
2. **Rapid Molecular Microbiology assessment approaches to assessing bioremediation**
3. **Geophysical approaches to site assessment**
4. **Computational modelling & prediction approaches to estimate contamination profile, forecast contamination development & assessing remediation options**

For further information please visit: <http://www.remediate.eu/>

## SoBRA's photography competition

The SoBRA's photography competition is a new addition, aiming to celebrate the artistic, unusual and often extraordinary characteristics of brownfield sites.

The competition is opened to all SoBRA members and all abilities. We want to get your creative juices flowing and invite you to submit a photograph fitting the description of unexpected and inspiring brownfield site. The winning photo will be judged on impact as well as its ability to illustrate Pathways to Regenerative Sustainability of Brownfield sites.



The winner will be announced at the AGM ceremony on 13 December in the Royal Society of Chemistry, Burlington House, London, and will receive a prize of one year's SoBRA membership. Subject to the popularity of the contest, a shortlist of images will be picked for inclusion in a 2016 calendar.

You should submit your photographs and entry form to [info@sobra.org.uk](mailto:info@sobra.org.uk) with the subject heading '**SoBRA's Brownfields photo competition**'.

**Entry is free and you may submit up to five images.**

**Closing date for entries: Friday 9 December 2016.**

## Joining the Society – how, when?

We welcome applications for membership from individuals that have an interest in risk assessment. You can join at any time of the year and at any stage of your career. For further please visit our website at <http://www.sobra.org.uk/membership>



Members can renew their annual membership on-line and will be sent a reminder email to do so two weeks before their subscription is due.

If at any stage you forget your password click on the link below the log-in box in the top left hand corner of the SoBRA website and follow the instructions you receive on the email that you will then receive.



If you have an idea for an article or would like to include an event listing in the next SoBRA newsletter, or on our website at please contact us at [info@sobra.org.uk](mailto:info@sobra.org.uk)

## SoBRA Executive Committee

**Lucy Thomas – Chair**

**Alex Lee – Vice Chair**

**Hannah White – Treasurer**

**Jason Bale - Secretary**

**Frederic Coulon – Newsletter Editor**

**David Jackson – Website Coordinator**

**Geraint Williams - Ordinary member**

**Theresa Cory – Ordinary member**

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