Bulletin

Occasional information for members

Institute of Safety in Technology and Research

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May 2005

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General enquiries about the Institute should be addressed to the Honorary Secretary:

istr-secretary@bham.ac.uk

Enquiries about membership should be addressed to the Membership Secretary:

istr-membershipsecretary@bham.ac.uk

ISTR EXECUTIVE COMMITTEE

The executive committee has met at The University of Birmingham in December 2004, March 2005 and May 2005. The following is a summary of the matters considered.

November 2004 Symposia

Both well attended. A lesson from day 1 - microphones must be used. Consideration is being given to purchase/hire of PA equipment for symposia.

Skills Development Workshop May 2005

16 delegates attended. Programme too ambitious – overran time. Modest profit anticipated, though planned to break even.

November 2005 General and Biosafety Symposia

The theme for the general symposium, Waste Management with particular reference to the new Hazardous Waste Regulations. On the following day, Biosafety Symposium organised by the northern Sub-group - main theme gene therapy.

ISTR Constitution

Proposals for revision of the Constitution to be put to the AGM: replace "safety " with "health and safety"; retired members continue to use designatory letters with the addition of (ret.d); new section, only Fellows and Members are eligible to serve as officers or members of the Executive Committee; experience criteria for membership clarified, two years (full-time appointments) or four years (part-time appointments with 50% of time allocated).

Events for 2006

A Skills workshop on "Root Cause Analysis" is being considered for spring 2006. A venue in Dublin is being pursued for the AGM/Symposium, 2006. The theme will be “Risk Management and the Safety Professional”.

Training and Accreditation of BSO's by ISTR

A member had submitted a proposal that the ISTR take on the role of accreditation body, specifically for biological safety officers. As this represented a significant change in ISTR's role a formal proposal will be put to the AGM to set up a working party to consider the issue in principle and to use the BSO proposal as a model scheme to investigate the requirements for and the resource implications of becoming an accreditation body.

A WORD FROM THE EDITOR

Welcome to another issue of the *Bulletin*. The *Bulletin* is a service to and for members. In this issue you will find news of members, details of forthcoming *ISTR* activities, a report on a recent meeting of the Executive Committee and other items sent in by members. If you have any item that may be of interest to other members please let me know.

From time to time, as a further service to members, advertising material may be enclosed with the *Bulletin* but this does not necessarily mean that the ISTR endorses the particular products.

The ISTR is not responsible for individual views expressed in the *Bulletin*.

The Bulletin is edited by: Dr FJ Young, Health and Safety Unit, The University of Birmingham EMail f.j.young@bham.ac.uk

MEMBERSHIP NEWS

The Institute has admitted the following into membership

Further details may be found in the updated, on-line version of *ISTR Members' Handbook* in the members' only section of the ISTR website.

Full Members:

Dr G Burns, Miss CG Davidge, Miss A J Entwistle, Ms S Laugharne and Mrs J S Thomas.

Associate Members:

Mrs L Dixon and Mr BW Rudge

Upgrade to Full Member

Mrs J N Cotton.

Enquiries about membership should be addressed to the Membership Secretary: istr-membershipsecretary@bham.ac.uk

DATES FOR YOUR DIARY

2005 AGM and Symposium

The ISTR 2005 Annual General Meeting and Summer Symposium will take place at the Pollock Halls, University of Edinburgh on the 5/6 July 2005. Following the AGM on the afternoon of the 5 July, there will be a tour of the undergound streets beneath

the Royal Mile. Dinner, preceded by a sherry reception, will be a traditional Scottish Meal.

The theme for the symposium on the 6 July is Emergent Technologies - Novel Risks. Scientists are constantly pushing boundaries of science and technology but is it safe, or is there a significant risk, and is that perceived or real? The speakers, from HSE, NRPB and University research centres will attempt to answer some of these questions. Topics will include hazards of new materials, health risks, nanotechnology, tetra radio waves and risk assessment.

2005 Autumn Symposium

A meeting on waste management is planned for 2 November. Topics to include recent developments in waste regulations, what to expect in the future from Brussels, environmental auditing, what contractors can do for us and a workshop on “Hazardous waste management” and “Classifying waste”

3rd Bio-Safety Sub-Group Symposium

This will be held on the day following the 2005 Autumn Symposium and at the same venue in the West Midlands. The northern group is considering a programme on health and safety issues in gene therapy and may include other work with GM vectors in clinical trials that don't come under the gene therapy heading but has to be dealt with in a similar way.

Skills Development Workshop, Spring 2006

The subject will be "Root Cause Analysis"

2006 AGM and Symposium

This is being hosted by Dublin City University and a little earlier than usual in the third week of June. Theme: “Risk Management and the Safety Professional”.

For more information contact the Events Secretary: istr-eventssecretary@bham.ac.uk

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ISTR Autumn Symposia, 10/11 November 2004

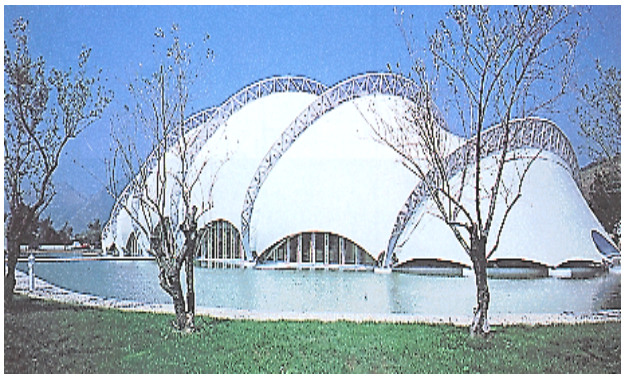
75 delegates attended either one or both of the autumn symposia hosted by Eli Lilly at Erl Wood Manor. The general symposium on the 11 November was followed on the next day by one organised by the ISTR Biosafety Sub-Group, northern section. *Dr Chris Thomas has provided the following accounts of the two symposia. Copies of the presentations may be downloaded from the members' section of the ISTR website.*

LABORATORY DESIGN SYMPOSIUM

Building projects areas to consider

Mike Dockery, SciTech Engineering and Chair, BSI Laboratory Technical Committee

Mike Dockery set the scene for developing a new rational strategy for laboratory construction projects. The need was there, created by emerging Scientific techniques, regulatory requirements, changes in research efficiency and productivity and increasingly, the importance of environmental concerns.



Samyn Chemistry Laboratory at Safrano, Italy

Mike outlined the some of the strategic and tactical elements to consider right from the start. He forward the case that physically visiting existing laboratories to try to plan for future ones was inherently a flawed approach as in all likelihood, the needs identified in the past would not reflect the needs of a future lab. We were asked to consider an alternative approach – the ‘Armchair Tour’ – as a key element in communication with User and Management Groups involved in a laboratory project. Two test case examples of the approach were given,
The Samyn Chemistry Laboratory at Safrano, Italy and the incubator laboratory modules of the PEG/BBA, Berlin, Germany.

Central to the new approach was the need to obtain feedback from all involved parties in the lab design and construction on key elements which could be scored and evaluated. Mike left us tantalisingly with a promise to complete his explanation of how this might be achieved at the end of the Symposium.

Professional Interfaces in building projects

Clive Parkinson, University of Sussex

Duty Holder prosecutions for 2001 demonstrated that the major burden of lay with Clients who had been unable to make any or competent appointments or plan approriately. There was therefore a need to take

a more professional approach which was outlined in 5 key phases of Project Delivery, namely:

- Design Concept
- Design Development
- Construction
- Post construction Occupation and
- Post Contract Review.

Each of these elements was considered in more detail during Clive's presentation. The overall message that emerged, was the need for good communication between the client and all parties involved and the fact that the client played a key role during the whole process from initiation to completion as **the** party present from start to finish.

Good planning, consulation and management by the client ensured that you were on time, on budget and on Spec. And if done deftly, you were seen as a help and not a hindrance!

Building flexibility

Alex Felthouse, Eli Lilly

Alex Felthouse demonstrated how building flexibility into laboratory design could have a significant beneficial effect during a laboratory's life-time using Erl Wood as a case study.

The passage of time had demonstrated that key elements such as the demountable partitions to allow laboratory restructuring, mobile benches and casework and provision of services overhead rather than through the floor facilitated flexibility. A Major lesson was that it was better to plan big laboratories that could be subdivided than to start with small ones.

Laboratories, infrastructure, layout and material flow and building construction were all discussed with regards to flexibility contstraints and flexibility enablers. The conclusions were that change, the need for spare capacity and flexibility are here to stay.

Engineering controls – what questions should I ask ?

Jim Mylott, AMEC

Just as we were wondering how one might deal with the engineers and contractors on the basis of Alex's talk, Tim Fry of AMEC design gave us part of the answer with his presentation. Questions were divided into two sections:

- What are you trying to achieve?
- How can this be achieved in a practical and cost effective way?

We were asked to consider, that whilst wishing to achieve control of containment, air pressure, cleanliness, temperature, humidity etc., it was worth looking at how narrow or broad our tolerances were as this could have a major impact on cost. For example, whilst generally desiring a temperature control of say plus or minus 1^{o}C during working hours, allowing for parts of the day/night or a few days a year to fall outside of the strict temperature range could result in cost savings. Another major element in achieving cost effective environmental control was through the use of a Building Management System (BMS, also known under other acronyms such as BAS and BEMS). The final recommendations were that the environmental conditions , their tolerances and the level of control required should be clarified and that it was best to keep it simpel and to set achievable targets. This would ensure minimal problems in commissioning, control, maintanance and would reduce long term costs.

Containment level 3 a specialised facility

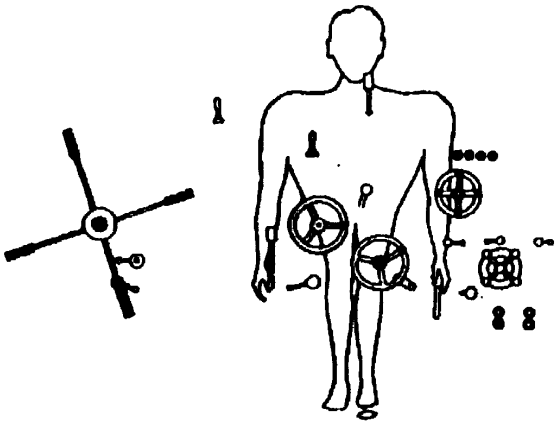
Anton M DePaiva, Imperial College

Anton De Palva Approached laboratory design from another scenario all too familiar to many of us, dealing with an existing facility with restricted space and finances and trying to bring it up to a high standard of containment. Particularly relevant was the demonstration that full CL3 containment could be achieved at a relatively economical £4K/square metre for the construction costs. Anton's top tips to achieving an easy life and successful outcome were to be involved in the design team, project management and commissioning, to accept only quality work and to be dogmatic and yet pragmatic! Clear initial objectives obtained in consultation with stakeholders, Involvement of the safety team throughout with regular on site inspections during the project and finally providing comprehensive but relevant documentation on how to use the facility.

Ergonomics in workplace design

Ian Randall, HuTech

All talk so far had been on the physical aspects of construction. Ian randall of HuTech provided a timely reminder that ultimately it was we humans who had to inhabit the work space and that sadly, ergonomic design had played a secondary role. The result was inefficient workplaces that could actually result in harm and lost productivity!



User Centred Design? - Cranfield Man

Ian provided a range of features to consider for laboratory benches, Fume cupboards and Biosafety

cabinets. Good practice included the fact that Work surface height should be determined by the tasks and equipment, not by a standard historic figures; leg space should be available where people were seated. The ergonomic design process included asking:

- What is it going to be used for?
- Who is going to use it?
- What do the users want to do?

Armed with this information the initial design and layout could be developed. Best of all, modern CAD design or models could visualise the workstations and allow refinements based on user testing and trials. Feedback on usability and functionality after installation would also be of benefit.

A possible solution to some building project aspirations

Mike Dockery, SciTech Engineering and Chair, BSI Laboratory Technical Committee

Mike Dockery who now considered how one could measure potential solutions and define the impact of aspirations in laboratory design. Mike presented the Lab Facility Profile Model which asked stakeholders to score 12 metrics that were shown to reliably give a snapshot of a lab design for functionality, people issues, value and sustainability. The 12 metrics are;

- Flexibility
- Adaptability
- Extendability
- Ambience/feel
- Social
- Capital cost
- Modularity
- Compliance
- Interaction
- Revenue cost
- Reusability
- Environmental

Mike provided an intial set of questions that could be used by stakeholders to try to evaluate each of the metrics on a 1 to 5 scale (poor to excellent). By averaging the results from queries from a number of different interest groups, a good snapshot of the planned laboratory's strengths and weaknesses could be inferred. The benefit was that an decision to go ahead with a laboratory design could be achieved using a set of objective criteria.

Mikes final comments summarised the general theme running through the symposium

> "Scientists are not designers; Architects and engineers are not scientists. If we are to enable Project Managers to deliver successful laboratories (on time, at cost and functional), then we must make the best use of the tools and techniques which maximise communication, awareness and understanding between these groups. The systems are low-cost and easy to use ~ we have no excuse!"

All the speakers' presentations can be found on the ISTR website on the member's page.

Biosafety Sub-group Symposium

BIOSAFETY AUDITS AND INSPECTIONS

Biosafety Management Programmes

Dr Gary Burns, Astra Zeneca

Dr Burns reiterated the elements of Biosafety Management following the HSE POPMAR model. Prime was the need for organisations to manage biosafety with the same degree of expertise and to the same standards as other core activities if they are to effectively control risks and prevent harm. He described how the process starts with establishing a site policy with full top level management commitment which then leads on to the organisation and planning. Components of the programme were explained in more detail including the need for detailed responsibilities and accountabilities within an organisation.

Key performance indicators could then be used to measure progress.

Remember: Success is no accident!

Methods of Compliance Verification

Dr Gary Burns, Astra Zeneca

Dr Burns compared Safety Inspections and Safety Audits, which were often regarded as synonymous but were actually two distinct ways of monitoring safety performance and compliance.

Audits were considered in detail for the rest of the workshop because of their being systematic, documented, periodic and objective. They aimed to verify compliance, measure performance and importantly, ensure continuous improvement against external and internal standards and good industrial practice.

Elements and steps of Auditing

Dr Peter Guldbarndsen, Novartis International AG

The process was divided into three steps:

- the Pre-audit which included elements such as scheduling, selecting an appropriate audit team and sending a pre-audit questionnaire

- On site audit with an opening meeting, a 'desk top' review, site tour, documenting findings and writing the report draft
- Post audit includes approval of the report, its distribution and the resulting action plan. It was important to follow up the audit.

What Dr Guldbarndsen excelled at was demonstrating, that a good audit did not have to conform to the misconception below.

> 'A convoluted exercise of interrogation designed to terrorise supervisors and managers into reactive posturing and buck-passing'

Indeed the core message from Dr Guldbarndsen's talk was that an audit is a process that is only truly successful if you can win the trust and confidence of the site audited. An audit is a co-operative venture which helps the site achieve best safety practice adapted to its own local situation.

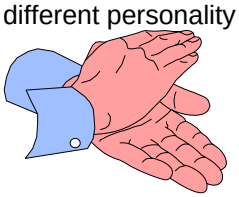
Audit communication skills

Dr Helmut Bachmayer, Novartis International AG

Exemplified by his own considerable communication skills, Dr Bachmayer introduced the importance of communication skills to achieve such a positive outcome. Some of the important elements in this process were:

- Attitudes – e.g. focussing on improvements and showing empathy whilst reporting verifiable facts only
- Verbal aspects – e.g. verifying your partners comprehension, keeping it shoort an simple, listening actively and giving feedback
- Emotions – remaining interested and tolerant, staying objective and factual even during emotional outbursts by partner.

Participants were given pointers to help discussing weak points identified in an audit and dealing with different personality types. The importance of thanking all involved for their co-opreration, support and patience, their ideas halp and engagement was also stressed.



Symposium Workshops

Armed with all the new found information and skills, we entered the second half of the workshop, where we were divided into four groups and entered planning and role play under the guidance of Dr Helmut Bachmayer.

We planned our hypothetical audits and established audit teams and compared our diverse responses at the feedback session. The ensuing role plays then confronted us with the practical difficulties of dealing sensitively with two different and opposite types of company safety management style.

Peter Guldbarndsen and Helmut Bachmayer played their roles as Company CEO and Safety Representative straight faced against our initial confusion upon finding that reality could be a lot more complex than the theory suggested! That we could enjoy the hilarity of the role plays, of what in real life could have been very difficult situations, reflected Gary's, Peter's and Helmut's high standard of presentation and carrying the workshop participants with them in their aim to educate us constructively.

At the end of the Workshop, all participants had gained a new insight into how a good audit could be conducted and of the skills that had to be developed by practice and preparation.

Skills Development Workshop, May 2005

MEASURING AND MONITORING

David Heath, ISTR Events Secretary reports:

16 members attended the spring Workshop on Measuring and monitoring at the University of Birmingham in May. In the morning Steve Robertson of Crowthorne HiTech went through airflow monitoring, dust monitoring and noise surveys, illustrated with a comprehensive array or monitoring equipment.

In the afternoon, Mike Slater of Diamond Environmental Ltd talked about the thermal environment and sick building syndrome, with hands on measurement using simple thermal measuring devices.

HSE BIOLOGICAL AGENTS UNIT

The *HSE Biological Agents Unit* recently invited a member of the ISTR to participate in their annual conference held in Chester. This represents a significant recognition of the ISTR's role to promote the value of its membership and to promote effective safe working. Heather Sheeley, ISTR Vice Chair, gave a presentation entitled "Friend or Foe?" from the perspective of the safety advisor or BSO during an inspection/visit experience. The meeting concluded with a lively discussion between the invited presenters from industry, society, NATSCO and the Chief Inspector of Microbiology, and the unit. An exciting alliance with the HSE is expected to continue.

Current Consultative Documents

The Executive Committee organises formal responses from the ISTR to Consultative Documents (CD's) put out by the Health and Safety Commission, etc. Each such response is intended to be based on the views of the membership co-ordinated by identified individuals. These co-ordinators need to have expertise in a particular area of interest to the *Institute* because the timescales for responses to CD's is sometimes very short and there may be little opportunity for further consultation with the membership.

If you are willing to act in this capacity of "CD" co-ordinator for ISTR please contact Arthur Mitchell, Hon. Sec., and indicate the topic area you have the expertise to cover.

Volunteers are needed NOW for the following.

The documents may be downloaded from the web addresses provided.

Health and Safety Commission

Consolidation and revision of the *Construction (Design and Management) (CDM) Regulations 1994* and the *Construction (Health Safety and Welfare) (CHSW) Regulations 1996*, and revision of the supporting guidance

The Health and Safety Commission has published a consultative document setting out proposals for new regulations to consolidate and replace The Construction (Design and Management) and Construction (Health Safety and Welfare) (CHSW) regulations. These have been developed in close consultation with construction industry stakeholders.

The proposals aim to:

- simplify the Regulations to improve clarity and make it easier for everyone to know what is expected of them;
- maximise their flexibility to fit with the vast range of contractual arrangements;
- focus on planning and management, rather than 'the plan' and other paperwork;
- encourage co-ordination and co-operation, particularly between designers and contractors; and
- simplify the assessment of the competence of organisations.

Closing date for comments 29 July 2005
[http://www.hse.gov.uk/consult/condocs/cd200.htm]

Department for Environment, Food and Rural Affairs

Consultation on amendments to the *Specified Animal Pathogens Order 1998*

The purpose of the *Specified Animal Pathogens Order 1998* (SAPO) is to ensure that specified animal pathogens (i.e. the animal pathogens listed in the Schedule to the Order), most of which are exotic to this country, are held and worked with under conditions that prevent their escape from the facilities

in which they are held. This prevents the spread into Great Britain of animal diseases which are not endemic and which, if introduced, would cause serious diseases in livestock and economic loss to the livestock industry.

The Schedule to the *Specified Animal Pathogens Order 1998* has not been revised since the Order was introduced in 1998. Since that time, other serious exotic diseases of animals have emerged or spread from their original areas. These include Nipah disease, West Nile fever and St. Louis equine encephalomyelitis. Defra believes that in order to maintain the level of protection that SAPO provides, it is necessary to bring the causal agents of these particular diseases under SAPO control.

It is proposed to add Nipah disease virus, West Nile virus and St. Louis equine encephalomyelitis virus to Part I of the Schedule to the Specified Animal Pathogens Order by means of an Amendment Order. The effect of this amendment would be to prohibit any person from possessing these pathogens, or carriers containing them, without having a licence authorising them to do so under SAPO. The introduction of the pathogens into any animals or birds would also be prohibited, except under licence. The Order will extend to England only.

Defra also propose to replace the names of two specified animal pathogens listed in Part 1 of the SAPO Schedule to reflect the names by which they are now more commonly known by the scientific community, as follows:
Equine morbillivirus with **Hendra disease virus** and Cowdria ruminatum with **Ehrlichia ruminatum**.

Further changes to SAPO are currently being considered and proposals relating to these will be the subject of a separate consultation in due course. The updating of the SAPO schedule is being taken forward now to shorten the time during which the pathogens that are proposed to add to the SAPO Schedule remain outside the scope of SAPO controls, because of the seriousness of the potential risks they pose to animal health.

Closing date for comments 30 August 2005
[http://www.defra.gov.uk/corporate/consult/animal-pathogens/index.htm]

Department for Environment, Food and Rural Affairs

Regulations transposing the treatment permitting requirements under Article 6 of the Waste Electrical and Electronic Equipment (WEEE) Directive and providing for exemptions for storage, repair and refurbishment of WEEE

The consultation paper sets out the detailed proposals and includes a draft of the proposed regulations. Guidance on the Best Available treatment recovery and recycling techniques and a partial Regulatory Impact Assessment are also included. You should note that this consultation covers England and Wales only. Scotland will be consulting separately about the arrangements proposed for their own administration and Northern Ireland has already consulted.

Closing date for comments 19 August 2005

[http://www.defra.gov.uk/corporate/consult/weee-article6/index.htm]

ISTR's ELECTRONIC INTERFACE

HAZNET-ISTR Email Discussion List

This is a closed email discussion list. That is, only ISTR members are given access to it. Members need do nothing; members are automatically added to the list by the Membership Secretary using the email address supplied by the member. Queries about HAZNET-ISTR should be addressed to the Membership Secretary (see page 2 for contact details). Please ensure the Membership Secretary has your current email address.

Bulletin

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