

Birmingham Health, Safety & Environment Association

Registered Charity No.: 255523

Fax: 0121 421 3463

721 Hagley Road West

Quinton, Birmingham B32 1DJ

Email: secretary@bhsea.org.uk

Website: www.bhsea.org.uk

Tel. No. 07802 973795 (09.30 – 12.30) only

Secretary: Andrew Chappell C.Eng., MIET., Dip.E.E., CMIOSH, MCMI

Newsletter

November 2007

Twin Presentations on 12th
November 2007

Does it look Good –
Is it Safe?

*George Allcock, Group Safety Advisor, GKN plc and
Chris Peck, Health and Safety Manager, Birmingham City University*

George Allcock started this “Double-bill” by presenting the view from the large Engineering firm’s position. Regardless of the size of the firm, George commented, it is important to get a strong grip on the basic principles of protecting people. That means knowing, he said, what **Good / Safe** looks like, and how accidents are caused! The following elements are significant, he added: -

- Exposure to foreseeable **Hazards**, causing foreseeable **Injury or Ill-health** *by*
- **People acting / behaving** in a way they may be reasonably expected to act *in*
- **Circumstances** that may reasonably be expected to occur

All observations of incidents in these elements, he went on, must be called into question, if accidents were to be prevented. He expanded on the likely causes by saying that they could be

Engineering Causes	<ul style="list-style-type: none"> • Equipment, machine, process or facility not suitable • Mechanical, electrical, pneumatic, hydraulic or other failure • Guard or safety device not provided, not suitable or poorly designed • Failure of guard, safety or warning device
People Causes	<ul style="list-style-type: none"> • Not aware of correct procedure (should have known) • Did not follow correct procedure

	<ul style="list-style-type: none"> • Mistaken action / decision (bad judgement) • Deliberate act / omission • Lack of, or limited, employee capability • Lack of reasonable care or attention
System Causes	<ul style="list-style-type: none"> • Correct / Safe method / procedure not available • Method / procedure available but not suitable or not adequate • No, or poor, training • No, or poor, information • No, or poor, monitoring and review. (This also applies to the other Causation Categories above)

In any work situation, these are just some of the **“Indicators”** that Safety Performance may be impaired and that remedial action needs to be taken. The list is not exhaustive and should be a catalyst to create a greater awareness of hazards, especially in the **‘personal’** or **‘circumstance’** categories, which often get ignored alongside the common, physical ones, like Engineering, tripping or slipping hazards. George emphasised that informed workplace observation, like this, should lead the observer to question issues that should also be addressed in good business practice, as part of creating an acceptable work ‘ethos’.

This critical examination of **“Indicators”** Needs to be thorough and systematically applied by asking: -

- What work operation is being done?
- When is it carried out? (*In what order, in a sequence of operations, is more significant than “on Tuesday at 2.00 pm, in this context!”*)
- Where is it being done? (*Which workshop, what floor, which machine?*)
- Who is doing it? (*Mechanical Fitter, Electrician, Painter etc.*)
- How is it being done?

BUT – the most significant stage in this examination is that the enquirer should ask



“Why?” about **all of the other questions**, in order to develop valuable solutions to the issues!

As an example, George showed the above photograph, which illustrates a procedural failure with pedestrians in a traffic area, despite the provision of traffic barriers and a pedestrian access door. If the vehicle access door had been closed then the pedestrians might have complied, but was there a robust procedure for this and was the training adequate? The man using the pedestrian door was complying with the system and looks like a ‘manager’, but was he at fault for not cautioning the others? After all, he was giving a good ‘visible’ example to the others, but a bad example by appearing to ‘condone’ their non-compliance! (N.B. Do you think, also, that the position of the “No Pedestrian” sign is confusing and discourages correct use of this door?)

The hazards observed in the above case are self-evident and the risks fairly immediate and are defined as “Direct Indicators” in this approach. The next example George used was not so obvious, however, but the risks are severe and involved the casual observance of interlock keys, lying on top of the operator’s control panel for a conveyor system. The keys themselves did not present an immediate hazard to anyone in the vicinity BUT they were an “Indirect Indicator” of a serious hazard in other ways.

This was revealed when the simple question was asked “What are those Keys for and Why are they there?” It transpired that, when the workpieces on the conveyor changed, their different physical characteristics sometimes caused the control system to trip out. ‘Someone’ then uses the key to access a remote electrical panel behind the conveyor to re-adjust the conveyor settings before re-starting it.



This operation is inherently unsafe and does not provide sufficient protection to a second party, out of site of the remote control panel.

Any manager seeing this situation and who asks the “What, When, Where.....Why?” series of questions will not only identify the risk issues but will send out a powerful message to drive through improvements and compliance. Moreover, asking an operative to demonstrate the work operation, is a powerful way of engaging people, getting them to think more freely and encouraging them to become more involved.

In a similar example of a defective system, George cited a situation in Workshop where these racks were tidy and apparently well organised. However, something

seemed to be *missing*, when it came to putting items on the top shelf or removing them! When questions were asked, it was found that steps were available, in fact, but were a long way from the rack. This made safe behaviour a little difficult and increased the probability that workers would cut corners by adopting bad practice, particularly if only a small number of items were involved on the top shelf. Another solution, of course is to prohibit the use of the top shelf, or use it for very infrequently used items and insisting on strict compliance with need to use steps. Whatever the solution, workplace audits, or inspections should involve observing actual behaviours and talking to people about the work they do.



In another example of a missing control measure, George presented an example of more immediate risk in the form of electrical testing work. This is quite common where electrical equipment is being assembled or maintained and this photograph is typical. The problem, here, is that although there are prominent notices at the operator's position, there is no evidence of any barriers to prevent other people from approaching the test area and receiving a fatal electrical shock or severe electrical burns. This also indicates that this activity may not have been risk assessed and that this may also mean there is no robust testing procedure with clearly defined authorised personnel or Permit To Work system.



George's next example was a photograph of engineers working in a mechanical robot cell, where the Castell Interlock key had been left in the guard system, whilst the main power isolation switch was still on! This was a strong '*indicator*' that there was no lockout in place and probably no safe system of work in operation, or even specified!

It is also bad practice to rely on an interlock system (even with a properly secured interlock key) to isolate power for prolonged access to a hazardous machine, when it could develop a fault, or be inadvertently activated.



Prolonged access to hazardous cell



Main Switch



Castell Interlock

Successful identification of all these “**Indicators**”, however, will only occur if the right “ethos” exists to encourage a greater awareness, alongside the knowledge that a positive Management System exists to improve performance. Continuing on the theme of “**Does it Look Good – is it Safe?**”, George gave us some common-sense ways of distinguishing between Poor and Good Performers.

Poor performer

Good/excellent performer

No clear leadership/ownership



Visible/active management leadership

Control & command culture



Supportive culture

People – ‘consultation’



People – real **involvement**, teamworking

Changes made – safety added



Safety built-in to **change management**

Problem management (reactive)



Risk Management (proactive/preventative)

Poor housekeeping



Good **Housekeeping** – visual management

None/occasional self audits



Regular **audit, measurement & review**

Focus on failure/corrective actions



Continuous improvement

Some training where law requires



Planned and structured training at all levels

Memos and notices



Active **objectives, targets & plans**

Ownership by a few e.g. specialists



Ownership by **line management/everyone**

The ability to recognise the “**indicators**” helps the entire workforce to identify the “performer” characteristics built-in to the business model – be they Good or Bad. The

authority to improve performance and manage safety can then be devolved down to **Work Teams (Cells)** of approximately 5 or 6 persons. Their Action Plans are incorporated into a co-ordinated programme, together with individual employee, department/section and Plant plans supported by an active Safety Committee. This structure is supported by sub-systems at different levels in the organisation: -

- Schedules for safety team activities showing Good Practice
- Machine Operator checklists showing standards of e working operations
- Display/control boards, showing Department/Cell information, communications and control measures
- Examples of risk assessments and current issues on display boards.
- Monthly summary of accidents, risks, issues/concerns raised
- Visual technique for risk issues or improvement opportunities, recorded on A1 size paper to encourage team activity.

This uses photos for capturing and communicating risk issues. The Problem or Concern is described, the Remedial Action specified and the responsible person identified, together with the required action deadline. Finally, the finished state is illustrated in the “After” photograph

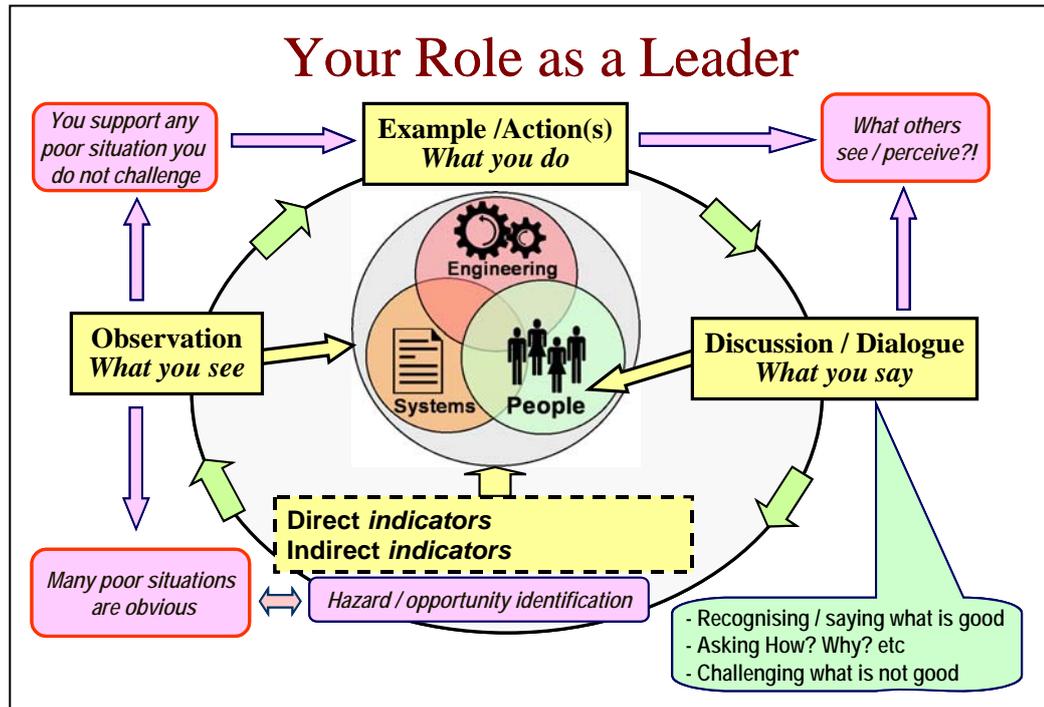
Continuous Improvement Department/Area: Process/Machine:				
Before	Problem/concern	Action	Who by & Date	After
	<i>Example of visual approach using flip chart</i>			

- Photographs are also used to demonstrate Correct/safe way and Incorrect/Unsafe way to carry out fitting work in a ‘side-by-side’ format.
- The similar images are also used to compile safety posters to illustrate common causes of accidents and the safe/unsafe way of preventing them.



George concluded by saying that the following diagram neatly summarised this whole concept, which embodies the principle of basic Leadership in this highly visible,

proactive process. Instead of being buried in manuals, it is alive, on the shop floor and run by all the stakeholders.



Floor Safety at Birmingham City University (BCU)

Chris Peck selected, as his example, one recent experience at the University, previously known as University of Central England, which neatly combined the **Safety** improvements with **Operational** enhancements and **Aesthetic** qualities alluded to in the theme of today’s presentations. The events started with a request from the Health and Safety Executive for two Inspectors to demonstrate how slippery the floors were and to research the management of floors in critical areas. This was part of an ongoing HSE national interest in Slips, Trips and Falls and a history of 127 reportable accidents at BCU, of which 33 were in this Category.

From the research standpoint, it was appropriate to examine conditions at the external entrance to the Baker Building although, as Chris pointed out, there had not been any reported Slips, Trips or Falls there for five years! This view shows what happened in the entrance corridor, when it rained, and further inside there was a ‘plume’ of water on the terrazzo flooring. The existing mat in the door-well was not doing an adequate job! Even further inside the building were vinyl tiles and the HSE Roughness Meter confirmed their



Original Baker Entrance Corridor – with Leaves and Water when it rains!

slip resistance was particularly low when wet and this constituted a “High Risk” on the HSE’s **Slips Assessment Tool (SAT)**. This is a computerised programme that Quantifies these elements of ‘Slip Resistance’ (<http://www.hsesat.info/>): -

- Floor Type
- Surface Roughness Value *
- Contamination Type *
- Contamination Amount *
- Contamination Source
- Footwear
- Floor Cleaning Type *
- Floor Cleaning Frequency *
- Contamination Re-occurrence *
- Surface Usage
- Environment

All the elements marked with a (*) can be influenced directly by the occupier and improvements should produce a reduction in the SAT Rating, initially calculated as a **47 Risk Rating (High)**. The hazards identified were:

- The mat removes dirt but not water from footwear
- The hinged, outer lobby doors are heavy and often held open, so that the entrance corridor fills up with leaves
- When it rains, a 3m plume of water is created inside the inner doors, in the Entrance Hall
- A warning cone and occasional dry wipe does not remove the hazard adequately in this busy entrance accommodating 2,000 pedestrians per day!

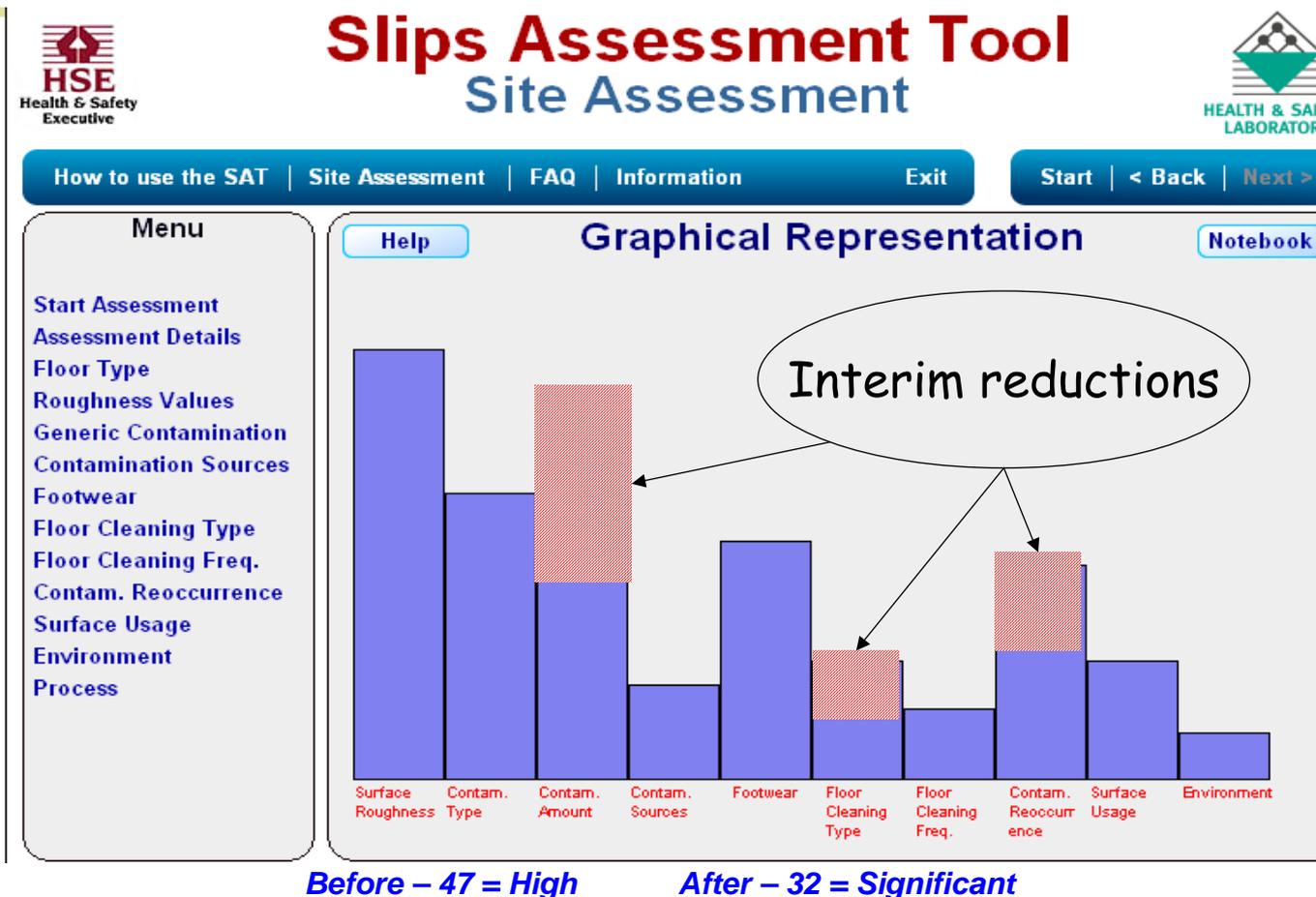
Other findings were that: -

- The Cleaning Contractor had ‘disappointing’ Risk Assessments and need to tighten up on methods of working and training
- The University’s Building Services did supervise their Cleaning Contractor, but did not have a risk assessment for the Entrance. **For that reason, the HSE issued an Improvement Notice!**

The initial response to this was to carry out a Risk Assessment for the Baker entrance. This involved consulting with colleagues on ways of reducing the slip potential – and checking to see if there were similar problems in the other 79 Buildings, with 176 Entrances! Immediate remedial actions were: -

- Improve the Cleaning Methods and Training of cleaners, particularly on wet days
- Purchase loose barrier mats to be inserted after the existing mat well to reduce water contamination. (The resultant trip hazard had to be minimised!)
- Investigate a replacement for the mat in the well. This choice took several months.
- Identify structural improvements to the entrance area.

The immediate effect of these interim actions was to reduce the slip resistance, as follows: -



So, although there had been a tangible improvement, more needed to be done – but that needs MONEY. It was here that the “Slips Fairy” waved her magic wand, because the new Vice-Chancellor had identified the need to refurbish this, the Perry Barr Campus’s ugliest entrance, in keeping with the enhanced image being sought with the change of name!

The benefit was that the needed safety improvements were able to be built-in to an ambitious Project Specification to: -

- Remove the internal steps in the Entrance Hall by raising the floor, including in the adjacent function hall, to the same level
- Replace the vinyl and terrazzo with a ceramic tiled floor having reduced slip
- Provide a refurbished multi-function hall and a new conference suite
- Create an Entrance lobby with Inner and Outer automatic doors and matting surface
- Provide external steps to give access to the higher, internal level of the entrance hall and construct a matching Disabled Access alongside.

The benefits were quite significant: -

- SAT Rating down to **23 – Medium Risk Rating**
- External steps and ramp giving excellent access and a ‘landscaped’ appearance
- A dry interior because the new mat retains the water so well

- Leaves kept on the Outside because of the external steps and better door closing!
- Carpet replaced timber floor in the multi-function hall – much better teaching and examination environment
and THIS: -

It looks **GOOD** and is much **SAFER!**

BHSEA Council Elections

At the next BHSEA Annual General Meeting, we will be holding elections for Council Members to hold office for 2008 and 2009. The Members are elected Council to give advice to the Management Committee on all the Charitable Activities of the Association. It is an essential function that keeps the Association in touch with the needs of its ordinary Members and guides us in, amongst other things, our selection of presentations for the annual programme.

If you think you would like to contribute to this work, please contact the Secretary for more details.

Better Regulation Initiative

The **Department for Business Enterprise & Regulatory Reform (BERR)** has just begun an important consultation on nothing less than the health and safety system in this country. It is entitled, “**Improving outcomes from health and safety: a call for evidence**”.

On the link http://bre.berr.gov.uk/regulation/reform/health_safety/index.asp you will see: -

“We want to hear your views and experience of the health and safety system.

For example:

- What are the main things that influence health and safety in your business? Could government do anything to make it easier to get things right?
- In general, how well are people at work protected?
- Are there particular health and safety requirements that do not make sense to you? What are they? Why?
- Would you rather government told you exactly what to do? Or do you want Government to leave the detail for you to sort out?
- Have you found any particular initiatives especially helpful, e.g. example risk assessments?”

This is clearly an important consultation for BHSEA Members and we are keen to respond and to make our voice heard. Please visit this site and spare some time to share your thoughts with us. Please let me have your comments by Friday 11th January, at the latest.

Date of the next Meeting

2.00 pm on Monday 10th December 2007
at the Birmingham Medical Institute

“Management of Occupational Road Risk”

*A presentation by
Paul Gallemore Head of HSE and Supply Chain HR, Wolseley UK*

Wolseley UK is the UK operating company of Wolseley plc, the world's number one distributor of heating and plumbing products and is a leading supplier of builders' products to the professional market. As you would expect, it operates a very large vehicle fleet to distribute its products Nationwide. It is also a pleasant surprise that it has won the following, impressive collection of awards for the operation of that fleet in recent years: -

2006

- BRAKE ‘Road Risk Manager of the Year’ awarded to Paul Gallemore – Head of HSE Wolseley UK
- BRAKE ‘Crash Analysis Procedures’ Award – Winner – Wolseley UK
- Prince Michael International Road Safety Award – Wolseley UK

2007

- BRAKE ‘Company Driver Safety’ Award – Large Fleet Category – Wolseley UK
- BRAKE ‘Crash Analysis Procedures’ Award – Commended – Wolseley UK
- RoSPA MORR Silver Award – Winner – Wolseley UK

With that sort of pedigree we can expect a valuable contribution to our knowledge on how to control a significant risk of injuries on our roads and severe dents in our vehicles repair costs!

As usual, there will be a Buffet

Lunch at 1.15.pm