



## ***Birmingham Health, Safety & Environment Association***

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# *Newsletter*

# *October 2007*

## *Visit by Beijing Delegation*

In October, Birmingham Health, Safety and Environment Association acted as hosts to a delegation of 15 officials from the Beijing Administration of Work Safety, which is responsible for enforcement of Chinese H & S Law in the Capital city.



The delegation had requested information about the BHSEA work programme for this year, specifically related to Construction Safety. In welcoming the delegates, Construction Chairman, Gerry Mulholland, outlined the Association's strategy in reflecting the HSE's Work Plan, with a specific reference to the launching of the CDM

Regulations at the Midlands Forum in May. Also present was RoSPA Vice-President, Lord Jordan of Bournville, whose first-hand, professional experience in China added real value to the ensuing discussions. An invaluable contribution also came from the presence of HSE Principal Inspector Construction, Richard Lockwood, who was well placed to give feedback on the enforcement issues in the UK Construction Industry. The discussion was followed by a brief tour of the BHSEA Advice Centre, before the guests returned to their London base.



L to R: Mr. Qian Shan, Chief of Human Resources & Education Department; Lord Jordan of Bournville, Vice-President RoSPA; Andy Chappell, BHSEA; Mr. Guan Wei, Director General, Beijing Administration of Work Safety, Mark Hoare, Chairman BHSEA; Richard Lockwood, HSE Principal Inspector, Construction and Gerry Mulholland, BHSEA Construction Chairman

## *Welcome to Our New Members*

*We wish to extend a warm welcome to the following members, who have recently joined BHSEA: -*

- Alec Scanlin, Health and Safety Consultant
- Stephen Davies, Health & Safety Advisor, Express & Star Ltd.
- Cliff Lees, EHS Advisor,
- Michelle Owen, Systems Development, Radshape Sheetmetal Ltd.
- Stephen Parton, Risk Control Surveyor
- Michael O'Flaherty, Director, Jetcast Plumbing & Drainage Services
- Wayne Roden, Environmental & Quality Assurance Manager, Oakside Solutions Ltd.

## *Presentation on 8<sup>th</sup> October 2007*

*James Stapleton, Geographic Team Leader, Laing O'Rourke*

**J**ames explained the role of his Company, and that of his division within it, by showing examples of large Midlands projects. He went on to say that the current Lifting Operations and Lifting Equipment Regulations (LOLER) replaced three previous sets of legislation in 1998. Their main provisions were a requirement for lifting equipment to be: -

- Strong and stable enough for use and marked with the Safe Working Load
- Positioned and installed to minimise risks
- Used safely in a planned way by competent people
- Subject to ongoing, thorough examination and, where appropriate, inspection by competent persons

James went on to say that it was important to realise that the definition of **Lifting Equipment** covered anything used at work to power or lift loads, including Tower Cranes, Fork lift trucks, hoists, Mobile Elevating Work Platforms and vehicle inspection platform hoists. Attachments used for anchoring, fixing or supporting them and Lifting Accessories, such as chains, slings, eyebolts, shackles swivels and spreader beams are also covered. Equipment for lifting person must also be clearly marked as such. Other specific requirements are: -

- Lifting equipment (and its accessories), before being used for the first time, must be thoroughly examined.
- Thereafter, this should be done at least every 12 months
- Where used for lifting persons, inspections should be every 6 months.
- Weekly crane inspections should be done by the driver and kept in the cab to provide a history. All faults should be reported immediately and actioned immediately

Typical lifts might be: -

- Construction steelwork frames
- Placing of concrete
- Lifting plant around the site
- Placing of cabins
- As a slave crane to erect a larger crane
- Lifting kerbs using vacuum attachment on JCB/FLT/Road Vehicle with Hoist.
- Lifting pre-cast items (A growth area in reducing work at height)

At the centre of any lifting operation is the “Lifting Team”:-

- The **Crane Appointed Person** plans the operation
- The **Crane Supervisor** controls the overall lifting operation
- The **Crane Operator** operates a specific crane
- The **Slinger/Signaller/Banksman** attaches the load and guides the operator to manoeuvre it in blind spots.
- There is also a **Crane Co-ordinator** when there are multiple cranes on site



Laing O'Rourke has produced a **Safe slinging guide** and “**Safe operations of cranes**” booklets to improve safety and it is a contractual requirement to comply with them and to use important working documents. The fundamental element is the Lifting Operation Plan to include the following: -

- Details of all the lifts to be undertaken
- Confirmation of the Team structure and hazards

- Pictorial representation of each item and how it is to be lifted
- Display of a Safe System of Work
- Clear means of communication with radio or hand signals

The selection of the right type of crane is vital and depends on the following: -

- Weight of load: -
- Rating charts
- Consultation with crane experts
- Extent/Radius of lift, which is crucial on many sites, may need to address
- Oversailing rights
- Luffing jib maybe be better than saddle jib on tower crane
- Zone protection/SMIE programming
- Number, frequency and type of load to be lifted
  - Mobile/ Tower cranes?
  - 360° Excavator vs. Backhoe Excavator?
- Space available for crane access, erection, travelling, operation and dismantling (make sure any crane mast sections can be lifted out after construction is complete)
- Chains come in various types: Metal; Fibre; Wire rope. All need careful storage and examination. Be aware that some loads can cut through fibre rope, whereas others may distort metal chain/wire ropes. Do NOT use them as tow ropes
- Organise an independent check by A.N.Other!
- Ground Stability is vital: -
  - Starts with notification of conditions from the Client – required by CDM Regs.
  - If this information is not available – your ‘alarm bells’ should ring!
  - You need specialist advice about huge dynamic forces on outriggers.
  - Check for manholes, voids and services
  - Ensure that the ‘Temporary Work Co-ordinator’ is involved for checks on ground conditions

Regarding specialist Lifting, James said: -

- Tandem Lifting
  - Occasionally used for exceptionally large loads
  - Each crane should be de-rated by 20%
  - Hoist ropes to remain vertical at all times
  - Good communications are crucial
  - Use Mobile Cranes ONLY – never tower cranes!
- Temporary Works
  - Ensure reinforcement wall panels/cages are designed specially
  - The TWC needs to have an input to ensure that the panel is strong enough to be lifted and will not collapse in on itself





Double Wrapping Chains

Securing of irregularly-shaped loads is also a high priority consideration. It is crucial that tag lines must not ‘catch’ the load onto site structures. ‘Double wrapping’ of loose loads on chains is essential and nets are an important precaution under palletised loads to catch and items that may become dislodged by impacts.



Other types of cranes have their own special characteristics to consider such as: -

- Lorry-mounted Hoists
  - Some are very powerful and need careful handling
  - Lifting of cabins can be awkward for smaller hoists as the chain angle can be very low – creating a massive force on the chains
  - Often used for delivery of loose-load items such as pipes & bricks
  - Operator needs training and experience to develop sufficient competence before operating
- Tele-handlers
  - Increasingly used on sites
  - Used to bridge the gap when goods hoists are not used on low to medium height buildings
  - Can have very long reaches
  - Must be used with safe method of receiving loads at height with use of special movable barrier
  - Condition of pallets is crucial. Often used with fork attachment that may introduce its own manual handling hazard as it can weigh over 25 kgs.
- Tower Cranes
  - Some are exceptionally complex and need a thorough familiarisation briefing. A CTA card is needed. Beware of fakes – always check number on back of card with the CPCS helpdesk
  - Control handles have touch controls and it has been known that calluses affect machine handling
  - Make sure crane drivers do not suffer from vertigo – it has happened!

- Ensure that drivers get an adequate break time. It can take 20 minutes to get from cab to canteen – so build that into the operating plan!
- Hold regular ‘Crane Team’ meetings – to avoid clashes

James then dealt with the sensitive issue of “Contract Lift”, where employers do not have enough in-house expertise to plan and execute the lifting task. In such cases the appropriate expertise may be hired from an outside source, known as a ‘contract lift party’ to carry out: -

- Before entering a contract, the employing organisation must undertake a competence check to ensure that the lift party will comply with BS 7121. This would also be necessary under the CDM Regulations.
- All necessary planning, provision of personnel, equipment and lifting operation
- The contract lift party will provide the Appointed Person

James went on to explain some of the pitfalls in any lifting operation: -

- Wind loadings are ignored. Gusting winds should be allowed to die down before starting
- Loads lifted out of sight of the crane driver, resulting in poor communication
- Directions taken from persons other than the appointed crane team members
- Improvised loads not assessed properly for competent slinging and lifting
- Crane hook accidentally catches another part of the structure and pulls it down
- Collapse of pallets
- Threads pull out of purpose-built sockets in pre-cast concrete loads, due to cross thread or wrong attachment inserted
- Single wrapping of loose loads

In conclusion, James advised: -

- Assess the lift, implement control measures, communicate the SSOW to the lifting team and monitor the operation
- Carry out Post-lift Reviews
- Pre-fabrication off-site will increase the demand for cranning
- Used wisely, cranes are a valuable asset
- Without proper planning, lifting operations can be very dangerous

## *Members' Questions*

Construction Chairman **Gerry Mulholland of Laing O’Rourke** launched this session by reiterating James’ earlier about prefabrication leading to more demand for lifting operations, with a matching reduction in manual handling and more machines on sites. He added that another latent hazard was that a crane hire firm sometimes would send a 130Tonne crane when the 110 Tonne size that had been ordered was not available. This could be unacceptable under the proposed lifting plan, for a variety of valid, technical reasons. Finally, he mentioned that planned communications could become unacceptable after darkness in the winter months.

**Bob Cole of Morgan Est** commented that on some sites, it was unacceptable for tele-handlers to travel with some types of loads, with outriggers to maintain stability. James agreed sharp turns and tracking manoeuvres were a high risk.

**David Hughes of Hughes Business Services** raised the question of rescue from Tower Cranes and James replied that there were various systems available. **The Secretary** added that suspension trauma was a crucial factor in rescue plans that was greatly misunderstood, as was the unsuitability of most harnesses for supporting victims in a healthy position for many minutes. Consequently, most rescue plans were dangerously deficient.

**Peter Warne of Carillion Roads** asked if a waste skip was considered to be an Accessory or as part of the load? This deceptively innocuous question sparked off such an intense discussion, that it was no surprise that there did not seem to be a clear answer. Examination of Guidance Paragraph 46, treats refuse bins as part of the load, although they generally weigh a lot less than most Construction skips!

**Bob Peabody of Forum Training UK** asked if pallets should be marked with a Safe Working Load. The consensus opinion was that they were not.

**Steve Parton** asked if it was acceptable to appoint a subordinate Appointed Person on a site for a contract lift and could that person be a Scaffolder? James stated that Laing O'Rourke only had one Appointed Person on each site. **Ed Friend** said that this might imply that the sub-ordinate person had limited competence and that HSE would ask very searching questions about that arrangement!

**Warwick Adams of Interserve Project Services** asked if a CPCS Appointed Person was not doing a high volume of lifting operations, his competence would suffer and he would not be able to record many entries in his logbook. In that situation what action would he have to take at the end of the five-year period? James thought that this would mean retraining before starting again.

**Bob Cole** asked what pre-use checks should be made. James replied that this was covered by the Laing O'Rourke guidance and included use of a Lifting Operation Assessment Form, an Inspection Form, Thorough Examination Report and a team briefing.

As there were no more questions, Gerry closed the meeting with our thanks and asked the members to respond in the usual manner.

*Presentation on 10<sup>th</sup> September 2007*  
*An Insurer's View of Risk Assessment*

*Dave Bennett, Senior Risk Consultant and  
Jim Wilkes, Senior Casualty Underwriter, Zurich Commercial*

**J**im Wilkes opened the batting on this presentation by describing the Government recommendations on Risk Management expressed in the HMG Treasury Orange Book. He said that more specific views were put forward in the Hampton Review of Regulation and various other publications. Referring to the HSE approach, he commented that they devoted 8 pages to their guide on how to do it, in contrast to the 200 pages outlining the pitfalls associated with it! He added that the newspapers had plenty to say about the lead on toys when hidden risks became exposed!

He went on to say that Insurers' view was that Risk Assessment is subjective and questioned whether it was a Science or an Art. In many cases, he thought that it was driven firstly by values and beliefs and secondly by the facts. This could lead to serious Governance failures, as in the ENRON scandal and BP's failures in the deaths in the Texas oil refinery, and the environmental disaster with the Alaska Pipeline. As far as their 'needs' were concerned, suitable and sufficient RA was required to defend civil Liability claims for compensation, where its existence and quality is challenged. Insurers were not concerned with criminal cases, as fines were not covered by insurance policies! They were concerned that employers always aimed for 'best practice' and he illustrated his point with a series of humorous photographs to show the obvious situations that would be eliminated by Risk Assessment.



**D**ave Bennett then took over to talk about Risk Assessment as part of an overall management system specifically required by the Management of Health and Safety at Work Regulations. He went on to emphasise that it is only a tool for establishing standards and levels of protection for a particular job. For the purposes of legal compliance and civil liability defence it had to be "Suitable and Sufficient" and had to cover both General and Specific situations. The common key points are that Risk assessment should: -

- Identify Hazards
- Identify Control Measures
- Satisfy yourself that the job is safe to undertake

David then presented a sample Risk Assessment for a Spindle Moulder that identified, on a matrix, common hazards associated with the operation and maintenance of this machine. The related risks were also identified and a rating evaluated before identifying Control Measures. He then showed where this particular example failed to satisfy the "Suitable and Sufficient" standard: -

- No identification of the task/area assessed

- No Date/review Date
- Not all Hazards identified
- Risk Ranking missing, inconsistent, too high,
- Control measures were too vague and systems for training, inspections and maintenance not defined.
- The final assessment was “Operations considered safe”, which would immediately be challenged in Court!

Dave added that common failings with the application of risk assessment systems were: -

- RA was used as an “inspection process”, rather than assessment
- Actions/recommendations not followed up to any time scale
- Actions not signed off or reviewed
- Old assessments not retained
- Quality suffered if RA delegated to line management because of inexperience.
- Findings not given to employees
- Peripheral jobs, such as maintenance, not covered
- One-off jobs not considered

Dave added that where Regulations specifically required risk assessment, e.g. Manual Handling, Noise, COSHH Lead, DSE, then detailed information was required and it needed more attention to detail in terms of record keeping. For example, an Ergonomic Assessment of assembly work would be need to control Upper Limb Disorders, based on the following: -

- Mechanical aids
- Workstation design
- Loads, frequencies and work rates
- Job rotation records
- Conclusion and recommendations
- Monitoring and review

## *Members' Questions*

**Dennis Walley of Homeserve** commented that the HSE had specifically asked assessors not to use complex rating systems in their launch of the CDM Regulations this year. David replied that it was important to have some system of prioritising actions by using ratings.

**Jim Hathaway of Beiersdorf** asked whether the definition of suitable and sufficient was the same in the Civil and Criminal courts? Dave replied that HM inspectors were more flexible in their interpretation whereas the civil courts were more stringent. Jim commented that the lower ‘Balance of Probabilities’ standard in the Civil Courts affected this. **David Hughes of Hughes Business Services** added the comment that the particular culture in any industry varied these standards, particularly where methodology was complex and the process had to be explained in detail. Jim Wilkes added that a poor paperwork system was difficult to defend in court!

**Ed Friend of E.L.Friend Ltd.** commented: -

- Even with stringent control measures, Motorway operations remained high risk work
- Regarding the RA Chart example, he said that the type of Moulding also dictated the controls, according to the experience of the operator
- In his experience with the HSE, many RAs were based on existing control measures and didn't improve standards
- Managing directors must also evaluate their risks against the overall business budgets.

**Paul Clifford of National Grid Metering** asked if the Insurers ever challenged their Client's safety culture. Dave replied that they did and in particular asked how they dealt with their contractors. In a supplementary question, **Stephen Parton** asked what percentage of Clients' RAs was deficient. Dave Bennett replied that about 75% – 80% needed improvement and went on to say that he recently encountered one client with no Health and Safety documentation at all!

**Peter Evans** asked if the role had changed and if they should question taking on the risk sometime. Dave Bennett said that they do give an opinion on the client's overall safety management system and definitely look for an intention/commitment to improve.

At this point there were no further questions and the Chairman thanked Dave and Jim for their thought-provoking presentation. The members supported this vote of thanks in the traditional way.

## *HSE Falling From Vehicles Campaign*

We have obtained a bulk quantity of the CD ROM for the HSE's campaign for Falls from Vehicles and these are enclosed with this Newsletter.

# Working Well Together Campaign

BHSEA has been involved in a series of WWT SHADs during the past few months. The emphasis has now changed from the roadshows on general topics to specialised events focussing more on trade groups or types of work within the construction industry. During the summer we held a free Groundworks Trades SHAD at the CITB Training College in Lifford Lane, Birmingham.

This was followed in October by a Refurbishment and Facilities Management SHAD at the Birmingham Medical Institute. This was in response to the alarming increase in fatalities in these parts of the construction industry, particularly in the Electrical category that had risen from **three** last year to **ten** this year. This event showed that we are able to respond quite rapidly to a changing accident scene so that our message is kept fresh and up-to-date

The next two events were single day Designer Awareness Day events, aimed at the CDM Dutyholders at the beginning of the construction process. These were priced events and were staged in Coventry and Loughborough, respectively at the beginning of this month.

We are continuously aiming to find fresh ways to reach firms in the Construction Industry and we know there is much to do because the accident reductions have plateaued out. So, if you have any ideas for taking fresh initiatives in your Trade Group or sector of the industry, please get in touch with me and we will see what can be done.

## HSE Better Backs campaign

HSE have recently launched a Better Backs Campaign and you can obtain their campaign pack by looking at this link: -

[www.hse.gov.uk/msd/campaigns/campaignpack.htm](http://www.hse.gov.uk/msd/campaigns/campaignpack.htm)

The pack contains the following .pdf information sheets: -

Introductory sheet

Getting to grips with manual handling

Are you making the best use of lifting and handling aids ?

Upper Limb Disorders in the workplace – Risk Factor Checklist

Visual Display Unit work station checklist

Staying active – don't take back pain lying down

A short guide to managing sickness absence

Manual handling training course

It looks as though it is a very useful pack!

## *Date of the next Meeting*

**2.00 pm on Monday 12<sup>th</sup> November 2007  
at the Birmingham Medical Institute**

# **“Does it look good – is it safe?”**

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

*This meeting takes us back to the origins of BHSEA, when Members learnt from each other! Members will have an opportunity to hear at first-hand how two of their colleagues have succeeded in the introduction of new ideas for reducing risks into the workplace.*

*George Allcock will show how a large, multi-national engineering company did things that are easily applied to all sizes of firms. Using simple visual techniques to highlight the good, the bad and the ugly, to sensitise leaders, engage all employees and drive improvement”*

*Chris Peck gives a view from the very different standpoint of a University, aiming to avoid the most common, persistent and frustrating class of accidents, slips, trips and falls. He describes how the process started with a visit from the HSE to discuss their slips, trips and falls campaign, the imposition of an improvement notice, the initial remedial actions and, finally, the refurbishment of the offending area.*

*As usual, there will be a Buffet Lunch at 1.15.pm*