

Birmingham Health, Safety & Environment Association

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Newsletter

March 2013

Monthly Meeting 11th March 2013



Temporary Works'

Jan Andresen - HM Specialist Inspector of HXS (Construction Engineering).

Gerry Mulholland, Chair of BHSEA Construction Committee, welcomed Members to the meeting and extended a particularly warm welcome to new Members and Guests including; Keith Ball and Marek Sedivy of B&K Structures; Steven Dudman from Westleigh; Dan Platten from Lend Lease; Muna Abdulreza from Cranfield University; James Grant from Safeway; Michael Hill from PHd Architects and William Clive from PSN. Apologies were received from Tim Prestage.

Gerry went on to introduce our Speaker for today Jan Andresen, who is HM Specialist Inspector of Health and Safety. Gerry took the opportunity to thank the Health and Safety Executive (HSE) for their support to all sectors in particular the Construction sector over the years. Jan has been with the HSE for 11 years, and is a structural engineer by training. Jan asked that questions are raised at the end of his presentation.

What is 'Temporary Works'?

Jan used a range of photographs of real examples of temporary works situations to illustrate the contraptions people have rigged up and the many different forms of temporary works.

Definition of 'Temporary Works':

There are a number of definitions, including BS5975:2008, but Jan said his definition would be; anything the contractor has to do (including hoardings, welfare facilities, services, platforms, earth support, access, propping and shoring) to build the structure.

Typical Problems Involving 'Temporary Works':

- No planning or procedures
- No design or poor design
- Lack of competency on behalf of the contractor/developer
- No temporary works equipment available, or what is available is not being properly used.

Jan showed some further slides which demonstrated bad practice found across the UK, e.g. inadequate foundations; lack of competency; scaffolding improperly erected; no proper planning by a competent person.

Who is a Competent Person?

It is a legal requirement that individuals appointed to the role of Temporary Works Co-ordinator (TWC) and Temporary Works Supervisor (TWS) are competent. For Jan, competency is about professional as well as technical training and also knowledge, experience (appropriate to the complexity of the project) and authority. There is no formal qualification for the roles however, a number of organisations offer training to help in equipping individuals to undertake the role.

Hoardings:

The Temporary Works Forum (TWf) www.twforum.org.uk has recently published a comprehensive guide to the design of site hoardings. The Guide is entitled 'Hoardings – a guide to good practice', and is free to download. Wind conditions are a major factor in the use of hoardings and the stability of the hoarding which involves the posts being set in concrete in the ground. Heras fencing is an example of a hoarding, but it must never be covered in signs because in windy conditions, there can be problems.

Excavations:

Jan commented that the '4 foot rule' (1.2 metres) is still quoted, but in fact it is now extinct. If there is no shoring in an excavation that someone is working in,

then a Prohibition Notice will be served unless there is a suitable and sufficient risk assessment.

Soil Failure:

Jan noted that soils fail in different ways. Stiff clay soil will break into lumps whilst soft clays and sands will slump. This has been a particular problem of late in London where space is at a premium. The current trend is for home owners to extend by building underneath their home. Large swimming pools or gyms are being built underground in a new basement. Such jobs have become the bane of HSE Inspectors lives! Jan gave an illustration of some work in London involving an old church. The failure to properly underpin and to survey an existing wall led to collapse of a section of wall onto a worker. Jan added that where domestic jobs are carried out, the contractors can often overreach themselves.

Construction (Design and Management) (CDM):

CDM Regulation 31 requires "all practicable steps" to be taken to prevent an excavation collapse as opposed to 'reasonably practicable' steps. Jan took us back to 1959 and a particular bridge in Manchester. The incident became known as the 'Barton Bridge Disaster'. The incident involved a scaffold collapse. At the inquest, it was revealed that the scaffold had not been erected according to the drawings. There was a lack of lateral bracing and an engineer had not looked at the final design. A similar tragic incident happened a second time and the coroner's comments were particularly damning. An incident in Cardiff around 10 years ago involved the collapse of sheeted scaffolding around a building during high winds. The investigation revealed that there was an insufficient number of ties and that the information on how to construct them was unclear.

Temporary Works Guidance:

- Marples, F. The role and competence of temporary works coordinators. Institution of Civil Engineers, Civil Engineering Briefing. 10.1680/cien.2011.164.2.53
- SIM 02/2010/04 http://www.hse.gov.uk/foi/internalops/sims/constrct/2_10_04.htm
- BS 5975:2008 + A1. 'Code of Practice for Temporary Works Procedures and the Permissible Stress Design of False Work'.
- BS5531:1988 Code of Practice for safety in erecting structural frames (Withdrawn but gives useful advice)
- 'Preventing Catastrophic Events in Construction' RR834 www.hse.gov.uk/research/rrhtm/rr834.htm free to download.

CDM Regs – that apply to the design of temporary works as well as permanent works.

Temporary Works Coordinator (TWC):

Jan commented that it's sometimes easier to think of temporary works as a project within a project. The contractor is effectively the client within a temporary works contract, and so the TWC is an important role and not unlike that of the CDM Coordinator but requires detailed technical input to the project.

Temporary Works Procedure:

The duties of the TWC are set out in Clause 7.2.5 of BS5975. Of those duties, there are only two items that are wholly administrative:

- · Maintaining a temporary works register and
- Registering or recording the drawings calculations and other relevant documents relating to the final design.

All other duties require the application of engineering principles and judgement.

Temporary Works – What is the HSE Doing?

On-site, the HSE is looking for the following:

- Temporary works procedure
- > Temporary works coordinator What is their background/experience?
- Temporary works register
- ➤ Is there a design brief? covering the purpose of the temporary works.
- > Has the work been designed?
- > Has the design been independently checked?
- > Are the arrangements and procedures commensurate with the project?

Practically, the HSE are looking for adequate lateral stability because lateral bracing is as important as vertical support. The workforce needs to be competent to do the work. There must be an evident appreciation of the true force of the wind and the HSE will pay particular attention to where ad hoc changes have been made.

TW Design Checks:

The HSE SIM categorises temporary works as 'high', 'medium' or 'low' risk. The categories are a starting point to assess the level of input needed for design and checking, basically, if the consequences of the temporary works going wrong are high, so is the risk.



Brian Dunckley, retired consultant, commented on the confusion that could arise due to the number of scaffold codes (BS5973, BS EN 12811, TG:20 etc.) and the changing use of scaffolding. Jan reminded us that the Code of Practice is a *guide* only. He added that BS5973 was withdrawn when BS EN 12811 came in. HSE are concerned with safety, not in checking that a scaffold was built to a particular code. In the case of a low rise standard scaffold, Jan said that he would have no problem with the scaffold being built to the old code if it was safe. However, if the scaffold is not a standard configuration, and therefore needs to be designed, then the design should be to one of the current codes (either TG:20 or BS EN 12811).

William Clive of PSN enquired whether, in the case of hoardings, there is a standard to which the hoarding should be erected? Jan said that hoardings should have a design. Members should check out the Guide issued by the Temporary Works Forum (see above page 2). Temporary fences and hoardings need to be designed according to the job being carried out. Designed and not just built. It may be possible to utilise some information that the manufacturer has produced.

Gerry Mulholland, Construction Committee Chair and Head of H.S.& E, British Gas and New Energy enquired about the competence of people generally with regard to temporary works and potential outcomes if all goes wrong. Jan said that most general builders/contractors have some empirical knowledge which they apply to most situations however, that knowledge may not always be appropriate. Gerry probed further, and asked whether many temporary works issues have emerged during the HSE's blitz campaign. Jan said that he had had a few messages/requests for information from fellow inspectors. Jan commented that there is evidence of some good practice out in the field.

Neil Boon from Carillion and BHSEA Construction Committee Member asked about the designer's duties and 'brick and block work' which is often designed for the permanent rather than the temporary situation. Jan said that in the case of a load bearing masonry structure, it should be made to be stable throughout the work – whether it is a temporary project or not.

Gerry Mulholland noted that there were a number of CDMC's in the room today, what would be your comment regarding their role? Jan said that a lot of CDMC's are often *not* involved past the design stage. In the case of complex, high risk jobs, the CDMC has to make sure that the temporary works designer works alongside the permanent works designers.

Richard Habgood, in his role as President of ABS noted that the role of the CDMC is currently being revised.

Peter Bowers of ICDM (and Chinese Consultant) commented that it is important that the initial design takes account of the permanent design. It is vitally important that the designers coordinate and communicate. Particularly when there is pressure from the QS (and others) on the TWC to get things signed off quickly. Timescales are often short and the TWC can be in a very exposed position. TWC needs to stand their ground and be tough enough to withstand such pressure coming from within their own organisation and from external sources.

A Member asked whether there was any correlation between the incidents shown by Jan in his slides and the absence of a TWC. Jan reiterated that domestic jobs are the problem area. Such jobs are often on smaller sites, with a client who knows nothing about the process, a builder from the local directory etc. etc. It's a different marketplace with domestic jobs and difficult for the HSE even to find out about them.

This concluded Jan's presentation, and the Chair asked Members to show their appreciation in the usual way.

Development Workshop: BHSEA - The Way Forward...

Following Members' Corner at the last BHSEA meeting in February, George Allcock took the opportunity today to update Members on the BHSEA Workshop.

(See BHSEA Website for updated Power Point presentation www.bhsea.org.uk)

 The date for the one-day Workshop has been set as the 23rd May 2013.



BHSEA Council and Management Committee have been invited to attend.

In preparation for the Workshop, an on-line questionnaire has been developed and piloted. The questionnaire will be sent to Associate and Honorary members as well as the general Membership. Everyone's view counts. The questionnaire represents an opportunity for all BHSEA

Members to 'have their say' about the future of BHSEA and how they want it to shape up for the future.

One or two of our Members who don't currently sit on a BHSEA Committee,
will be invited to act as a 'Critical Friend' and to be involved in the Workshop.

Throughout this process, Management Committee focus will be firmly on Members and their needs and wishes. BHSEA membership levels and the recruitment of new members and retaining existing Members is a further crucial element for BHSEA to consider going forward.

Members should refer to the BHSEA website for George's full presentation www.bhsea.org.uk

Hot off the Press....

Mock Trial:

BHSEA is planning a half day mock trial on the 11th September 2013. The charge will be less than £50 (including lunch). We have provisionally booked a court room at Birmingham Magistrates Court. Chris Hopkins of Pinsent Masons LLP and BHSEA Council and Mngt. Cttee Member is taking the lead on this Event and will be hosting alongside lawyer colleagues. Numbers are limited to **30** BHSEA Members, and so places will be on a 'first come first served' basis. Contact the Secretary before 12th April to register your interest secretary@bhsea.org.uk

Safety and Health at Work Expo:

Are you attending the Expo at the NEC on the 14th to the 16th May 2013? Can you spare half an hour/hour to 'man' the BHSEA/SGUK Stand? This could mean that the Secretary can have a break and get some refreshment! Contact the Secretary secretary@bhsea.org.uk

NO CHANGE - Head Protection on Construction Sites:

requirement to provide and wear hard hats on construction sites. Following public consultation on the proposed revocation of legislation (CD239), the CHP Regs will be revoked from 6th April 2013 and the Personal Protective Equipment (PPE) Regs 1992 amended so that they apply to the provision and use of head protection on construction sites as well as to other forms of PPE. Feedback from the consultation showed a substantial majority of those who responded were in support of proposal to remove the CHP Regulations. The change in legislation will not lead to a change in practice as there is no change in the level of protection required, and employers will still need to provide hard hats and make sure that they are worn.

To support this, the HSE has developed a number of resources:

- A free leaflet in the 'Busy Builder' series http://www.hse.gov.uk/pubns/cis70.pdf
- A 'tool box talk' presentation http://www.hse.gov.uk/construction/areyou/hard-hats.ppt
- Updated PPE 'frequently asked questions' (FAQs) http://www.hse.gov.uk/construction/faq-ppe.htm

- FREE HEALTH AND SAFETY BUSINESS FORUM is being hosted by Birmingham City Council's Environmental Health Section on the 18th April 2013, from 9.00 to 11.30. Topics include fire safety, H&S update, learning from prosecutions. Venue is Executive Room 1 (on level 5) at the International Convention Centre (ICC), Broad Street, Birmingham, B1 2EA. Places are limited so please book in advance by contacting Terry Mallard on 0121-303-9915 or email terry.mallard@birmingham.gov.uk
- JOB OPPORTUNITY BHSEA Member SGH Martineau LLP is looking for some risk assessment/audit support for their Rednal based client who operates six warehouses, all on the same site. Their business packaging and posting toys. Contact Sheiba Brannan on 0800 763 1657 sheiba.brannan@sghmartineau.com

and finally.....

- Remember to check the BHSEA website www.bhsea.org.uk for copies of Speaker's slides and any notes supporting the presentations.
- If you know anyone who would like to join either BHSEA or any of the national safety groups, get in touch with the Secretary or go direct to the BHSEA website for an application form and for further information about what BHSEA can do for you...www.bhsea.org.uk

Date of the next Meeting

2.00 pm on Monday 8th April 2013 Birmingham Medical Institute

Jonathan Herrick West Midlands Fire Service

'Fire Matters – What's New/Changed?'

and

Members' Corner

Dr Niti Pall Diabetes and Work