

# Wilkins Safety Group

#### Monday, 23<sup>rd</sup> June 2014

#### Inside this Issue

- 1 How will BIM Make Building Safer?
- 2 Engineering firm in court after toppling unit crushes worker
- 3. Firm fined after worker seriously Injured in fall from ladder

# *Welcome to our latest Update E-Newsletter*

As ever, please feel free to share this with friends and colleagues. You will also find PDF versions of all our other newsletters on our website: <u>www.wilkinssafety.co.uk</u> with lots more useful information and a wealth of leaflets covering Health and Safety topics.

# This week we are looking at BIM (Building Information Modeling) and how it should make building safer

We are going to look at BIM and are hoping we can get a discussion going about it on our <u>Facebook page</u>. Some of the questions you may be asking or hopefully be close to answering include:

- How ready is your business for the new BIM requirements?
- How easy will it be for us to use?
- How much do you know about the forthcoming BIM requirements, and how prepared is your business?
- What Are Businesses Required To Offer By 2016?

These are questions for further discussion and, if there is enough interest, we have a colleague who is willing to come down from Oxford and address a seminar about the benefits of BIM and how to set it up in your practice. For this newsletter we are just looking at the safety aspects

#### We also have 2 recent HSE cases for you to look at and consider:

- A 54-year-old air conditioning installer injured his spine and was unable to work for several weeks as a result of an accident in Woking on 17 December 2012
- Lee Rutherford, from Durham, fractured his leg and arm and shattered his elbow when he fell more than four metres as he installed audio-visual equipment at a school.



# How will BIM Make Building Safer?

Do you want to make health and safety easier, quicker and cheaper during your building projects? Well you're going to love BIM.

The rapid growth of Building Information Modeling (BIM) is dramatically cutting costs in construction; by 20% and more according to early reports.



But great savings also come from the health and safety benefits; because accidents are costly! Especially when they lead to fines and lawsuits. So cut these down, and you cut costs too.

And for this, BIM will help.

#### Firstly, what is BIM?

**Business Information Modelling is the development and implementation of a consistent modelling approach across all sectors of the building and construction industry.** The bottom line purpose of this is to save money, with the Government looking to BIM to help cut the construction costs of public sector buildings by 20-30%.

It's a tool to generate a dynamic digital model of a building project – and more importantly All the data involved – before construction at the design stage. It increases productivity and efficiency; cutting costs at all stages of building and maintaining the building.

For a detailed introduction to BIM, check out this great post at the NBS: What is BIM.

The computer model created by the design company includes a huge amount of essential information which could provide valuable information to subsequent parties involved in the construction, maintenance or removal of a property. That knowledge could help improve the decision making process, cut costs, cut time, avoid unforeseen problems and improve safety.

# How will BIM Make My Building Safer?

Well it is early days yet but we can already see many ways BIM will improve health and safety during the construction process. As well as improving safety it should also make it quicker, cheaper and easier for you to meet health and safety regulations.

Here are the 4 clearest ways BIM will make your building safer:

# 1. Simulating Potential Hazards and Solutions; Identifying Risks Earlier

With forward thinking you can easily simulate potential hazards. For example: What are the potential hazards and risks going to be with the use of cranes on site or the need for plant and other vehicles to move through sites. Especially for the distribution and movement of materials, a major cause of accidents.

With BIM you can model these movements and look at how you can best alter or improve a potential crunch point rather than wait for it to be a problem on site that hadn't been previously considered.

Many potential hazards can be safely and carefully analysed and worked out with ease, and well-mitigated and planned for beforehand. All unique to your particular building site!

# 2. Automatic Checking against Health and Safety Regulations

<u>The BIM Task Group</u> is working to fit all BIM software to safety regulations in the UK; intended for completion by 2016. Basically, architects and engineers can instantly see if designs comply with the regulations, saving time and money working it out.

For example, the minimum headroom needed on stairwells, the numbers of people who can safely use a building, where fire compartments need to be, etc. These can all be automatically worked out with your BIM.

There will always be many judgment-based decisions requiring human consideration. Scott Bronrigg with the BIM Task Group estimates 30% of regulations can be incorporated into BIM software.

But that's still a nice big reduction in what you have to spend time working out. With the extra advantage of;

#### 3. A Reduction in Human Error

Many incidents are due to human mistakes in judgment, often because they just were not expecting that! So the more we can consider what could happen, prepare and model, the less likely we are to have any incidents.

#### 4. Better Communication; More Clarity

Sadly, too many incidents are caused by a lack of communication.

BIM can help display the potential hazards throughout the site, and provide clear visual aids to help awareness, memory and understanding. This can be used by the design team to advise the Principal Contractor of hazards and risks that could not be designed out.

It can also be part of the site induction with everyone to discuss what to look out for, and involve them in developing and carrying out the health and safety process. Of course, nothing beats human face to face communication to explain things. But any extra tool helps!

Beyond this BIM will just make everything is far clearer and better understood during the entire design and construction process.

Who knows in how many ways this will help your health and safety in the long run? All we can say for sure is architects and builders using BIM should be making safer sites.

#### How is BIM influencing the way you plan and run a construction site?

#### Do you have any more ideas or questions about the implications of BIM for health and safety?

#### Do you want to learn more about BIM or are you already "au fait" with it and happy to help others?

Please do join in the discussion about it on our <u>Facebook page</u> and as stated earlier, we have a colleague who is willing to come down and address a seminar about BIM

So if you would like us to organise this seminar please get in touch by phone 01458 253682 – Email jon@wilkinssafety.co.uk or by our Facebook page or Twitter

# Now to the latest HSE cases:

# Engineering firm in court after toppling unit crushes worker

A Hertfordshire engineering firm has been fined for safety failings after a toppling fan unit crushed a worker as it was being manoeuvred into a ground floor plant room at a Surrey development.

The 54-year-old, who does not want to be named, injured his spine and was unable to work for several weeks as a result of the incident in Woking on 17 December 2012 at a new- build head office for the World Wildlife Fund.

He was working for Wilden Services Limited, of Hemel Hempstead, which had been sub-contracted to install a ventilation system in the new building.

Guildford Crown Court heard today (20 June) that the large fan unit, weighing some 630kg, fell over as it was being moved on a pallet truck and pinned him underneath.

The incident was investigated by the Health and Safety Executive (HSE), which found it could have been prevented had a better system of work been in place.

Wilden Services Ltd, of Belswains Lane, Hemel Hempstead, was fined £15,000 and ordered to pay a further £7,148 in costs after pleading guilty at an earlier hearing to a breach of the Health and Safety at Work etc Act 1974.

After the hearing, HSE inspector Denis Bodger commented:

"The employee was seriously injured and could have been paralysed had his spinal cord been damaged by the falling unit.

"Companies should always ensure that extreme care is taken when moving heavy items, and that includes properly assessing the risks in advance and agreeing a safe system of work.

"The incident was entirely avoidable with better planning and management."

#### **Note from Jon Wilkins:**

Sadly such incidents are all too common - we have been called into investigate a similar crushing incident in recent weeks

<<< >>>

# Firm fined after worker seriously Injured in fall from ladder

AN engineering company has been fined £10,000 after a worker suffered serious injuries when he fell from a ladder onto a wooden floor.

Lee Rutherford, from Durham, fractured his leg and arm and shattered his elbow when he fell more than four metres as he installed audio-visual equipment at a school.

Almost a year later, the 23-year-old says he is still suffering pain in his arm and had to undergo extensive reconstructive surgery.

The accident happened at Filey Junior School, in North Yorkshire on June 21 last year.



SERIOUS INJURIES: Lee Rutherford

His employer, Peterborough-based Hedley Solutions Ltd, today (Friday, June 20)) pleaded guilty to a breach of health and safety law during a hearing at Scarborough Magistrates' Court.

The court was told that Mr Rutherford was using an extension ladder positioned against an internal wall of the school hall while he fed an IT cable through to the loft for a colleague.

But while at the top of the ladder, it slipped and Mr Rutherford fell around four-and-a-half metres to the floor.

The Health and Safety Executive (HSE) found that the ladders had not been secured and there was no effective anti-slip device or any other measure in use to provide stability.

It was also found that the work had not been properly assessed or planned by Hedley Solutions Ltd.

The company, which also has offices on Belmont Industrial Estate in Durham, was fined £10,000 and ordered to pay £1,296 in costs after admitting a breach of the Health and Safety at Work Act 1974.

After the hearing, Mr Rutherford said:

"I still get a lot of pain in my arm, there's a lot of scarring from where I had to have surgery and skin grafts to rebuild my arm and I don't have the same amount of movement as I used to.

"I have managed to go back to work, though I'm no longer with Hedley, but things are not the same as they were.

"No-one will ever understand how a fall from a ladder will affect the rest of their life. The constant pain and lack of movement I now have has affected me in so many ways. You need to stop and think before using an extension ladder – always think of yourself first."

HSE Inspector Victoria Wise added:

"The height of the ceiling in the hall at Filey Junior School was around five metres and the consequences of a fall from this height onto a wooden floor could have been fatal. As it was this young man suffered serious injuries from which he is still recovering.

"The real tragedy is that it could so easily have been avoided if Hedley Solutions Ltd had properly assessed and planned the work in advance."

Free guidance and information on safe working at height and use of ladders is available at: <u>http://www.wilkinssafety.co.uk/pdf/whss/access\_equipment\_and\_ladders.pdf</u>

<<< >>>



If you have any queries on any health and safety matter, please contact Jon Wilkins on 01458 253682 or by email on jon@wilkinssafety.co.uk



Your Business is Safer in Our Hands