

CONSTRUCTION HEALTH & SAFETY CONSULTANTS & TRAINERS





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## editorswelcome

Dave Carr Managing Director, Callsafe Services

We are still seeking any suggestions for improvement to on the content and format of CALLSAFE TODAY.

If you have any particular subject, related to health and safetu please, that you would like further information and/or our opinions on, we would be delighted to provide these in future editions, or privately, if required.

Suggestions and/or requests please let us know by sending them to us via enquiries@ callsafe-services.co.uk.

#### **CONSTRUCTION HEALTH AND SAFETY MANUAL**

Any of readers who attempt to keep up with changes to legislation, approved codes of practice, guidances, standards and best practice for construction health and safety will know how difficult and timeconsuming that this can be.

Construction Industry Publications (CIP) have been publishing the Construction Health and Safety Manual to assist with this difficult task for many years, and are offering the comprehensive reference as a CD and web-based format, in addition to the hard copu version.

This reference is created and updated by an editorial panel of construction industry health and safety experts, including Dave Carr of Callsafe, and is recommended as the reference to go to. The web-based version of the manual is updated continuously and the CD and hard-copy versions are updated every 6-months.

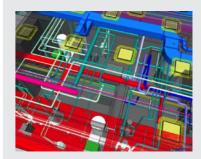
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## IOSH: PROGRESS CONTINUES ON ISO 45001 DEVELOPMENT

THE INSTITUTION OF OCCUPATIONAL SAFETY AND HEALTH (IOSH) REPORTED ON THE PROGRESS DEVELOPMENT OF ISO 45001 ON 18TH NOVEMBER 2016.



Safety and health experts across the world remain committed to ensuring a proposed new international standard for occupational safety and health is "as good as we can all make it", according to IOSH.

Work on the development of the ISO 45001 draft international standard (DIS) continues apace, with further progress having been made during a recent meeting in Lithuania of the standard's ISO PC 283 development committee.

Many of the nearly 3,000 individual comments made during a consultation on the ISO 45001 DIS earlier this year were resolved at the work

group meeting between 30 October and 4 November 2016, but further work is required to iron-out some remaining issues.

An additional work group meeting has been scheduled for 6th – 10th February 2017 in Austria. As a result, the release of the final ISO 45001 standard is not expected until the end of October 2017 at the earliest.

IOSH is a liaison body for ISO 45001 and was represented at the meeting in Lithuania by its head of policy and public affairs, Richard Jones.

Speaking after the recent meeting, Richard said: "The importance of this new standard and its potential to improve health and safety worldwide, mean that the drive and enthusiasm for completion are really strong and the commitment of this international work group is very notable.

"Spending additional time at this crucial development stage so that all voices are heard and international agreement reached, will pay dividends in the long-run. It's about creating a standard that is as good as we can all make it."

A further draft of the standard, which reflects the changes made in light of the consultation responses, will also be publicly consulted on, with this now expected to be in June 2017.

Richard said: "As a result, the earliest publication date for ISO 45001 is the end of October 2017, but it could be in early 2018, if a Final Draft International Standard is required."

The new ISO 45001 standard had originally been planned for publication in October 2016. In May 2016, however, the work group was notified that the DIS had narrowly failed to gain approval from the national standards bodies working on its development.

The work group members were therefore tasked with addressing the consultation comments with a view to providing a second DIS for consultation by the New Year, with June 2017 pencilled in as the new publication date. The additional drafting work required means the work group has reassessed the date for publication.

Once published, ISO 45001 will give organisations a universally-accepted framework for improving employee health and safety, reducing workplace risks and creating healthier, safer working conditions.

IOSH members can access an updated briefing document on ISO 45001 by logging in to MyIOSH and visiting our ISO 45001 page.

Image: Richard Jones, IOSH head of policy and public affairs.

# £26M MORPETH FLOOD ALLEVIATION SCHEME WINS ACCOLADE

The Morpeth Flood Alleviation development received the Project of the Year prize at the Constructing Excellence Awards in London.

The multi-million pound scheme, a joint project between the Environment Agency and Northumberland County Council, includes upstream storage and urban flood defences. It is thought to have prevented hundreds of properties from flooding last winter when the dam operated for the first time.

It is designed to reduce the risk of flooding to 1,000 homes and businesses, with the capacity to store 1.4 million cubic metres of water.

As the largest project of its kind in the north east, the scheme was jointly funded and delivered by the Environment Agency and the local council.

Cllr Ian Swithenbank said: "This was a great example of agencies working together on a hugely ambitious engineering project.

"The real key to this scheme has been the work with the community, and their input and engagement has been absolutely invaluable.

The fact the scheme has already been called into action shows its value to Morpeth residents. We're delighted the scheme has won this prestigious award.'





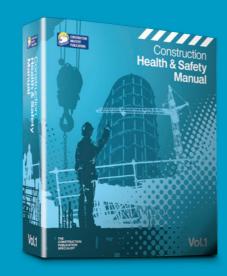
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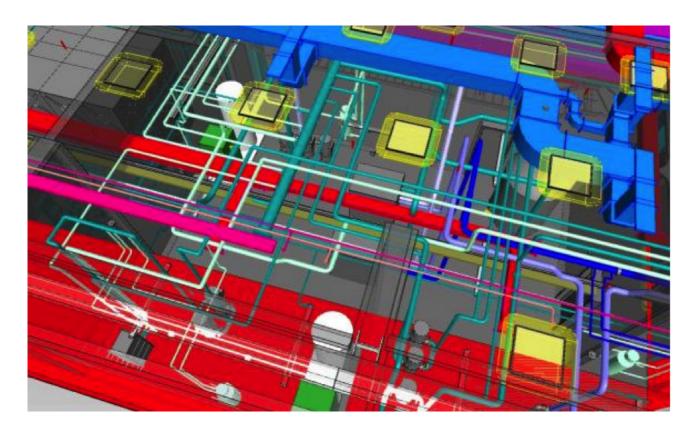






## **BIM SPELLS SAFETY ON SITE**

STEPHEN COUSINS PRODUCED THE FOLLOWING ARTICLE IN HEALTH+SAFETY AT WORK ON-LINE MAGAZINE ON 9TH NOVEMBER 2016.



Using BIM (Building Information Modelling) is now a requirement on many publicly funded projects. But can intelligent 3D models really improve health and safety, or is it all theoretical technobabble? Stephen Cousins reports.

The construction industry is at a digital tipping point as Building Information Modelling (BIM) is now transforming the way buildings and infrastructure are designed, delivered and operated. The creation of 3D models, embedded with data and information and shared by entire construction teams, can improve design co-ordination and reduce rework on site, leading to better quality buildings and significant reductions in time and the final cost.

The government has thrown its weight behind the technology. It has mandated "Level 2 BIM" – where the entire team in a construction project shares 3D design models embedded with construction data, on all centrally-procured public projects. Now the industry is beginning to exploit the technology

to improve health and safety practice, using BIM processes and intelligent 3D models to better identify and manage risks throughout the lifecycle of projects.

Designers can scrutinise the "virtual" building to determine hazards and plan how to handle them in advance of construction. The logistics of site deliveries, vehicle and plant movements, or the phasing of construction works, can be more safely co-ordinated. In addition, as the life of a BIM model extends beyond the construction phase, it can help facilities management teams to check for safe access for operation and maintenance, or to plan strategies for future refurbishment or modification work.

Architect Stefan Mordue, who works for data services company NBS, an off-shoot of the RIBA, is co-author of BIM for construction health and safety and a leading advocate of BIM's ability to improve safety outcomes. "It's still dangerous to work on site, so this is a fundamental area we should be looking at. The ability to mitigate risk diminishes as the construction

on a project progresses. Designers should be producing safety critical information during the modelling phase, in BIM, so that people upstream can benefit from it."

As Mordue adds, BIM's benefits lie in making information more accessible and less paper based. "The power is in communicating the message. On site, a lot of projects come together and disband quickly. There are a lot of languages on site, so visual communication is powerful. It can also get important information to people quickly – for instance, that a wall contains asbestos."

#### **HSE BACKS BIM**

Gordon Crick, a construction inspector at the HSE, who also chairs the sector's BIM4 Health and Safety Working Group, certainly sees synergies between BIM and construction safety. "CDM requires designers to foresee risk. One of the nice things we have seen with BIM is how it makes that come alive by using a visual language to foresee a risk.

"There are very strong links and points where we can say: 'Yes, if you do BIM properly you will begin to comply with some aspects of CDM""

Realising the technology's potential, the HSE is backing the development of a new standard to enshrine health and safety into the common standards the construction industry uses for BIM: Publicly Available Specification (PAS) 1192-6. The document will provide a "how to" guide on integrating the CDM Regulations and other safety issues into early design decision making. A public consultation draft will be published in April 2017, and the final version is expected in May or June.

One obvious area where BIM can leverage safety benefits is in the co-ordination required by the CDM Regulations. In the words of David Hammond, design director at construction and project management company Mace: "The principal designer process puts responsibility on the design team to design more safely and to mitigate or design out risk at source, and BIM is an integral part of that."

Where designers and contractors need to mitigate or eradicate risks before work gets on site, sharing 3D geometric models can make it easier to identify and understand risks, compared to traditional 2D drawings. Where hazards are traditionally annotated on drawings and added to a risk register, resulting in an unwieldy set of paper documents that are difficult to interrogate, BIM can make it simpler to capture risks once, digitally, and then to manage them throughout the lifecycle of a project.

Risks recorded in the 3D model with a visual identifier, such as an exclamation mark, will remain in place regardless of whether the model is viewed as a plan, section, or elevation. Simply clicking on the identifier could allow anyone viewing the model – from a designer in the studio to an operative on site – to link through to critical health and safety information, or method statements. Using BIM as the "single source of truth" on a project also helps to disseminate accurate information, which can help to promote safety.

Many believe that BIM can also address the more fundamental issues of enhancing designers' ability to identify risks. Andrew Barraclough, group design director at contractor Wates, says: "There is a need to go right back to basics, because lots of designers do not understand what a hazard or a risk looks like. When we appoint consultants, or when they are novated to us, we insist, as part of our scope of service, that risks are noted on drawings as a standard pro forma.

"But what we receive is hugely variable, ranging from the facile – such as a note to be aware of a risk of working at height on a 15-storey building, which is stating the obvious, to not noting anything at all, perhaps because they are not sure what we need to be made aware of."

#### **CUTTING OUT CLASHES**

Identifying "clashes" between structural elements of the building and the services that run through it, commonly known as "clash detection", is a key function of BIM. By default, this reduces the onsite drilling, welding or re-wiring required to fix problems detected on site. When BIM models are linked to time-related information through the project schedule data, so-called "4D" animations can be produced to clash detect potentially hazardous sequences of work before a project gets to site. If a proposed order of work reveals a safety risk, the procedure can be redesigned in the software without operatives facing additional risk.

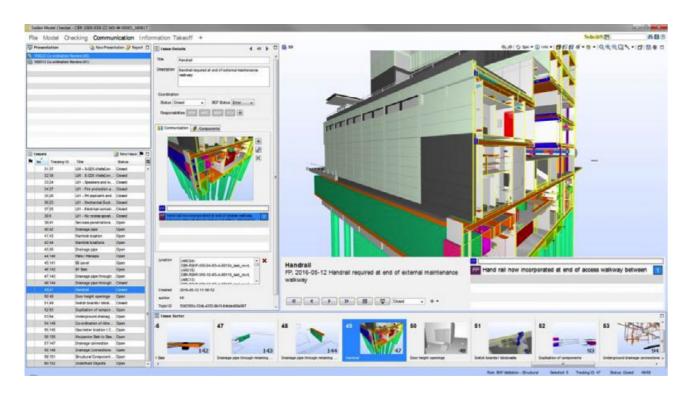
This process, likened to a form of visual method statement to control site risks, is being exploited at London's £14.8bn Crossrail project, where collaborative 3D underpins the 25 separate design contracts. Specialist BIM consultant Freeform has worked closely with Crossrail's delivery teams to develop "sequence of work" strategies.

Freeform's founder and director James Bowles, who is also working with contractor Skanska on its redevelopment of Battersea power station, says:

"Running weekly co-ordination meetings with the 4D model up on screen gives the project team an opportunity to engage with the strategy. It's a much simpler and more transparent method of communicating a sequence of work than circulating a ten page Gantt chart with thousands of lines of programme. It also centralises thinking, removing the need to interpret separate 2D information, and documents such as logistics plans."

Mace used 4D BIM to deliver a major new training facility in Hendon, north London (see cover). Mace engaged closely with its cladding sub-contractor to interrogate the procedure for lifting and installing sub-assembly structures for the external facade in a co-ordinated, timely and safe installation.

Raj Chaman, planning director at Mace, explains: "4D BIM enables us to digitally rehearse the installation and identify any hazard, or potential hazard, and try to mitigate it during pre-construction. There are a myriad of examples where logistics, access requirements, scaffolding and staging etc are fully integrated into one BIM construction model, which makes spotting hazards a lot easier compared to traditional 2D methods."



An example of BIM software for a Mace project in central London, integrating the 3D model with comprehensive product and safety information

## VIRTUAL REALITY CONSTRUCTION

Some practitioners are already embracing the next step in the evolution of digital construction: combining 4D modelling with a virtual reality platform, such as HTC Vive, to improve project planning, sequencing and logistics. Bowles says: "By directly extracting information from a detailed 4D model into virtual reality, health and safety managers, planners, designers and operatives will be able to virtually experience project and task specific environments, even before construction starts. The potential for this to improve safety planning is huge and is already being realised on a number of our projects."

However, it's arguable that BIM's greatest potential to prevent incidents and accidents is post-handover, when a building is in operation. Data and information gathered during construction and entered into BIM can be passed to the client and their FM teams to give them a clear understanding of any outstanding risks and so manage them more effectively. FM operatives using tablet PCs in the field could interrogate a 3D model to tap on different 3D objects and call up documents, such as the Control of Substances Hazardous to Health Regulations or work method statements, to ensure that their work is carried out safely.

In addition, when planning refurbishment work, BIM could highlight the presence of toxic substances in building materials or components, helping to inform the selection of more sustainable alternatives.

David Hammond at Mace comments: "Data in the model could tell a window cleaner where the tether points are and what loads they are designed for, or the location of adjacent hazards. When changing chemicals in a swimming pool filter, an operative could check the maintenance regime to ensure they have the right PPE for the activity before carrying out the task." Immediate access to information also eradicates the need to return to the office to check through documents.

However, there are also challenges around software interoperability and the exchange of information between BIM software, used by design and construction firms, and CAFM systems (computer-

aided facilities management) used by FM providers. FM teams would need to dedicate resources to ensure that BIM models and digital health and safety documents are kept up to date, as accidents often happen when working from out of date plans.

The HSE's Gordon Crick comments: "When you get into the world of asset management systems there are some very big players, who at the moment, would find it difficult to benefit from having BIM models in their systems and making use of related health and safety data. Nevertheless, we are committed to making sure this happens in future."

#### + SETTING THE STANDARD

PAS1192-6 is set to become one of the core Level 2 BIM documents, alongside other standards setting common specifications for the design, construction and operational phases, data exchange protocols and cyber security. The fast-tracked specification will be co-funded by the HSE, the Association for Project Safety (APS), lead industry sponsor Costain, and other industry partners. It is being developed by members the BIM4Health and Safety Working Group, one of several sub-groups allied to the government's BIM Task Group.

Bobby Chakravarthy, president of the Association for Project Safety, believes the document is an essential foundation for health and safety in BIM: "We set out to examine how health and safety can be integrated into the BIM process from the beginning of projects, and realised that the only way to do it holistically is by getting it adopted into the main standards. The basic requirements are to reduce hazards and risk across the whole project lifecycle, and to be clear about the content of health and safety information so it gets to the right people at the right time to ensure it is relevant."

The specification will set out how companies in the supply chain should gather and format health and safety information throughout the design and construction process, and be ready to pass it on to FM teams, to give them a clear understanding of residual or outstanding risks. According to Chakravarthy, this will involve health and safety "data drops" (when information is passed from the team to the client) at different stages of a project.

The PAS will also be relevant for product manufacturers, to help them determine what health and safety information related to their products should be added to the "digital objects" representing them that architects can insert into BIM models. If the information is all formatted in a standard way, then dragging in a digital object from a data library could instantly highlight all the risks associated with a particular product, in all relevant parts of the building.

PAS1192-6 should help projects better meet their obligations under CDM, and recent changes to the Regulations, introduced in 2015, are expected to create greater synergies with BIM. One key change is the replacement of the CDM co-ordinator (CDM-C) role with a principal designer, on projects involving more than one contractor, responsible for co-ordinating health and safety during the preconstruction phase, when BIM modelling is normally underway.

#### THE FINAL HURDLE

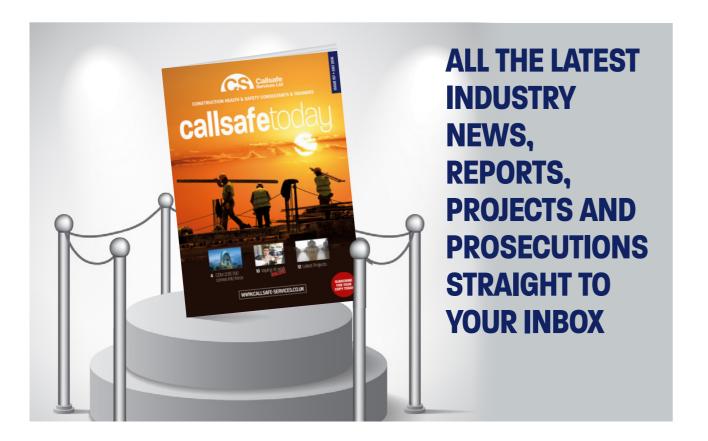
Although BIM has the potential to transform the safety of construction, there remain obstacles to embedding it across the sector. First, SME contractors represent the bulk of the industry, and are responsible for the bulk of health and safety offences; however,

many of them are put off by the perceived high costs of BIM software and training. As Stefan Mordue of NBS says, BIM is trying to take hold in an analogue world where "builders still tend to print out a drawing, laminate it and pin to the wall".

He also highlights cultural issues on site, including practical issues on using iPads and tablets. "Sites don't always have internet connections, and people have to remove their gloves to use them. And some sites ban mobile phones and tablet use." He urges construction companies to consider whether it's the right policy for a digital age. "A policy applicable five years ago might not be applicable now."

As construction teams scramble to get up to speed with Level 2 BIM, many will be considering the efficiency gains and improved profit margins ahead of the safety benefits. But once the PAS 1192-6 standard is in place, Mordue predicts a renewed surge of interest in BIM's safety applications.

"BIM and digital information has massive potential for health and safety, and I think we'll see it move to the foreground in the next 12 to 18 months. Contractors can already see how they're using BIM technology and processes to make money; if it's achieving that, think what else it can do for the sector."



## **POSITION 1**RESIDENT PRINCIPAL DESIGNER

Callsafe Services Limited have an urgent requirement for a full-time employee to lead our team of Principal Designer and CDM Advisors on multiple projects for one of our clients. The position is based in North-East Region, preferably within travelling distance of Leeds. Ideally, the person required would also be an experienced and qualified trainer for occasional briefings and training provided to the project team.

- 1. Must be IMaPS/CMaPS/FMaPS
- 2. Must be CMIOSH or MIIRSM/FIIRSM
- 3. Must have 10 years' experience as a Planning Supervisor/CDM Coordinator/Principal Designer
- 4. Must demonstrate experienced in construction site health and safety inspections and audits
- 5. Must have an appropriate technical qualification (Civil, structural, mechanical, electrical, etc. Minimum HNC or equivalent)
- 6. Must have passed the NEBOSH Construction Certificate
- 7. Must have an appropriate CSCS card
- 8. Registered on the Occupational Safety and Health Consultants Register (OSHCR) (preferred)

## POSITION 2 PRINCIPAL DESIGNER & TRAINER

Callsafe Services Limited also have a requirement for a full-time employee to join our team of Principal Designer and CDM Advisors on multiple projects for one of our clients. The position is home-based, working in North London, Oxford, Reading and surrounding areas. This position also involves training

in health and safety in construction and CDM.

- 1. Must be IMaPS/CMaPS/FMaPS
- 2. Must be CMIOSH or MIIRSM/FIIRSM
- 3. Must have 10 years' experience as a Planning Supervisor/CDM Coordinator/Principal Designer
- 4. Must demonstrate experienced in construction site health and safety inspections and audits
- 5. Must have an appropriate technical qualification (Civil, structural, mechanical, electrical, etc. Minimum HNC or equivalent)
- 6. Must have passed the NEBOSH Construction Certificate
- 7. Must have an appropriate CSCS card
- 8. Registered on the Occupational Safety and Health Consultants Register (OSHCR) (preferred)
- 9. Five years' experience as a trainer, providing vocational training of courses up to 5 days duration
- 10. Qualified to at least PTLLS or equivalent standard

If you wish to be considered for any of the above positions, please forward your CV and copies of qualification certificates to David Carr (Managing Director) at: dave@callsafe-services.co.uk.

#### The selection process shall be as follows:

- 1. Review of CV and qualifications
- 2. Telephone interview with the Managing Director
- 3. Personal interview at our offices with Directors, including a short (20-30 minutes) presentation on a CDM subject prepared by the interviewee, with the specific subject selected by the Managing Director.
- 4. Additional interview and acceptance by our major Client







## TRAINING & EVENTS

#### **CALLSAFE PUBLIC COURSES**

We have programmed a number of public courses as follows. The detailed programme of courses is shown on the previous page.

#### MANAGEMENT OF PRE-CONSTRUCTION HEALTH AND SAFETY 3 DAY COURSE

This APS accredited course is aimed at those persons who will be performing the duties of the Principal Designer on behalf of their employer, who has been appointed to this role by the Client.

It provides knowledge on the requirements, methods that could be used to achieve these requirements and the personal qualities necessary. The course also provides for the additional services that could be offered by the Principal Designer, or as a separate commission, for advising and assisting the Client with the Client's duties.

## DESIGN RISK MANAGEMENT AND CDM2015 FOR DESIGNERS 2 DAY COURSE

This APS accredited course is aimed at Designers and Design Risk Managers, providing a full understanding of the Designers' duties under CDM2015 and the options that are available for achieving these obligations.

The course could also be suitable for Principal Designers if they are experienced in the design requirements of CDM2007. Discussions and debates are encouraged throughout this course.

#### CDM2015 AWARENESS 1 DAY COURSE

This APS accredited course is designed to provide all persons involved in construction projects, including current and potential clients, project managers, principal designers, designers, principal contractors and contractors with a broad overview on the CDM Regulations 2015.

## CDM2015 FOR FACILITIES MANAGERS 1 DAY COURSE

This non-accredited course is designed to provide Facilities Managers, and designers and contractors working for Facilities Managers, with an understanding of their duties under the CDM Regulations 2015. Larger fit-out and refurbishment projects will be discussed as well as planned maintenance and reactive repair activities.

## MANAGING SAFELY IN CONSTRUCTION 5 DAY COURSE

This IOSH accredited course has been developed to provide managers, designers, etc. the knowledge and skills necessary to enable them to recognise the hazards likely to be present in the construction industry and the actions needed to control and manage them.

The course is suitable for Principal Designers, Designers, Project Managers, Facilities Managers and Managers of any constructionrelated organisation.

Further details of these, and other, courses can be found on our website: **www.callsafe-services.co.uk**, or by contacting Gemma Esprey at: **gemma.esprey@callsafe-services**.co.uk or by phone on: 01889 577701

#### **IN-HOUSE COURSES**

The above public courses, and many other CDM and other health and safety courses are offered as 'in-house' courses, where the trainer presents the course at a venue provided by the delegates' employer, and are priced at a daily rate.

Details of all courses offered can be found at: **www.callsafe-services.co.uk**, most of which can be customised to a particular customer's needs.



## WORKER SERIOUSLY INJURED IN MOBILE PLATFORM FALL

A Buckinghamshire waste equipment maintenance firm has been fined after a worker suffered serious head injuries when a mobile elevating work platform (MEWP) overturned.

Geoffrey Hatton, 49, was in the process of dismantling a compactor at a site in Wilmslow, Cheshire when the incident occurred on the 19th January 2015.

Minshull Street Crown Court heard that Mr Hatton, who was in the MEWP, and a colleague, were taking large pieces of cladding off the frame of a compactor. A large piece of the cladding came into contact with the MEWP and caused it to fall over. Mr Hatton fractured his skull and two ribs in the incident and spent two months in hospital.

An investigation by the Health and Safety Executive (HSE) found serious safety failings by Cole Mechanical Services Ltd. The MEWP was being used outside when it was only suitable for internal work, the firm's employees were not trained in how to use MEWPS or how to safely erect tower scaffolding, and no risk assessment had been conducted for the work being carried out. In addition, at the time of the incident another worker was working on a fragile roof with no protection to prevent falls.

Cole Mechanical Services Ltd pleaded guilty to a breach of Section 2(1) of the Health and Safety at Work etc. Act 1974 and was fined £30,000 and ordered to pay costs of £8995.00]

## WORKER DIES WHEN TEMPORARY PLATFORM COLLAPSES

A worker died and two others were badly injured at a construction site in Putney, when a temporary platform collapsed.

Southwark Crown Court heard how, on 29 October 2012, a carpenter and a steel-fixer had been standing on a temporary wooden platform above a stairwell opening on the 9th floor of a construction site when the platform suddenly gave way beneath them. They fell around sixteen metres down the opening. Both men landed on the partly-constructed concrete staircase below, where the carpenter sadly sustained fatal injuries. The steel-fixer survived the fall but was so seriously injured that it took almost 3 years for him to recover sufficiently to be able to return to work.

An engineer's assistant who was working in the stairwell on a lower level was hit by falling debris and also sustained serious injuries.



An investigation by the HSE found that similar platforms had been constructed on other floors throughout the construction site, by using timber joists supported by unsuitable joist hangers with plywood fixed on top. The platforms, which were part of 'temporary works' were neither built to an agreed safe design, nor was the quality of the build checked by those in control of the site, even though they were crucial to the safety of workers on upper floors.

Karen Morris, HM Inspector of Health & Safety, said "The risks of falling from height are well-known, and the risk of joist hanger failure is well-documented. This tragic incident illustrates what can happen if temporary works are not properly organised. All those who have a role in planning and managing work on site must take responsibility for ensuring that serious risks are properly controlled."

St James Group Limited, the Principal Contractor, pleaded guilty to breaching Regulation 22(1)(a), Construction (Design and Management) [CDM] Regulations 2007, and was fined £600,000 and ordered to pay costs of £14,935.54.

Mitchellson Formwork and Civil Engineering Limited, the contractors responsible for constructing the platforms, pleaded guilty to breaching Regulation 13(2), of the Construction (Design and Management) [CDM] Regulations 2007, and was fined £400,000 and ordered to pay costs of £14,935.54.

RGF Construction Limited, a site agent who assisted with managing the work, was found guilty at an earlier hearing on 4th July 2016 of breaching Regulations 13(2) and 28(2) of the Construction (Design and Management) Regulations 2007. The company was fined £20,000.

#### BUILDER HANDED SUSPENDED PRISON SENTENCE AND COMMUNITY SERVICE FOLLOWING UNSAFE GAS WORK

A builder has been sentenced to 250 hours of community service for putting a home owner at risk following renovations to their house in Cardiff.

Cardiff Crown Court heard that Brian James was hired to carry out renovations to a bungalow in Cardiff specifically to install new plumbing and heating, including a boiler.

Brian James admitted in court that although he did not carry out the work himself he employed a man he had never met before to carry out the work. He did not check that he was sufficiently competent, qualified or a Gas Safe registered engineer. He took his details from a board at a DIV store and could not provide further details to the Health and Safety Executive, who investigated the incident. The boiler had not been fitted with a thermostat and was not commissioned by a registered engineer.

HSE inspector, Simon Breen, said: "It is essential for public safety that gas appliances are only fitted competent, qualified and registered engineers. Anyone who is carrying out renovations to properties need to make sure they properly check anyone they bring in to carry out gas work so people's lives are not put at risk."

Brian James pleaded guilty to breaches of Section 3(2) of the Health and Safety at Work etc. Act 1974, He was sentenced to a 32-week prison sentence, suspended for two years, 250-hours community service, fined £636 and ordered to pay costs of £5,344.29.



## EMPLOYEE DIES AFTER COLLAPSE OF WASTE MATERIAL COVERS HIM

A Kent-based waste and recycling company has been fined after an employee died when wasted material collapsed on top of him.

Maidstone Crown Court heard how Neville Watson, aged 39 and a father of two, was working close to the pile of waste material after connecting a shredder to the loading shovel he was driving. He died of asphyxiation whilst under the pile of waste that appeared to be over eight-metres-high.

The investigation by the HSE into the incident, which occurred on 9th August 2014, found that New Earth Solutions Group Limited, failed to undertake and prepare risk assessments or safe systems of work for the creation and management of the stockpiles or adequate training.

New Earth Solutions Group Limited pleaded guilty to breaching Section 2(1) of the Health and Safety at Work etc. Act 1974, and was fined £80,000 and ordered to pay costs of £38,373.92. The judge indicated that is the company had not been in administration the fine would have been between £600,000 and £1.3million.

HSE inspector, Guy Widdowson, said after the hearing: "The request for Mr Watson to carry out the shredding operation was made without any form of structured training being in place.

"The company failed to ensure that Mr Watson was supervised by an employee trained in the task he was carrying out, particularly in light of the fact that he had never carried out the task before."

# CHEMICAL COMPANY FINED £3MIL AFTER THE RELEASE OF TOXIC VAPOUR CLOUD ON TWO SEPARATE OCCASIONS

A chemical company was sentenced today after a worker was killed and one left with life changing injuries when they were overcome by a toxic vapour cloud.

A little over sixteen months later there was another incident involving the same toxic chemical.

Hull Crown Court heard that in the early hours of the 5th March 2010, at the Grimsby plant of Cristal Pigment UK Limited (formerly Millennium Inorganic Chemicals), there was a build-up of Titanium Tetrachloride within a vessel. The chemical came into contact with water, creating a violent reaction, which ruptured the vessel. The liquid then came into contact with the air creating a large toxic vapour cloud.

One worker Paul Doyley, 48, was showered with the corrosive liquid and blanketed by the rapidly expanding toxic vapour cloud, resulting in his death on the 18th March 2010. His colleague, Ron Ingoldby, was also covered by the dense cloud, surviving his injuries but with irreversible lung damage.

The large poisonous vapour cloud rapidly expanded to several metres in height and poured out from the site as a thick, dense white cloud. The wind blew the cloud out across the river Humber and closed-down the shipping lanes for several hours, until the incident was eventually brought under control by the Humberside Fire and Rescue Service.

The investigation by the HSE found the company had deviated from the normal operating procedures, which led to the dangerous build-up of the chemical. Parts

of the plant and its procedures were poorly designed and the company had not established robust safety management procedures and systems of work to assess and control risk and to ensure that these were actually followed.

The following year, on the 27th July 2011, there was another uncontrolled release of a toxic vapour during the cleaning of a redundant vessel.

The vessel, which is normally connected to the chemical production plant, was being replaced. The old vessel was removed and stored, for around three-years, containing a number of tonnes of residual Titanium Tetrachloride.

The HSE's investigation found that the company made the decision to clean the vessel. The company poorly managed the design and installation of fabricated plates to seal the vessel before carrying out the cleaning process. The plates were incompatible, incorrectly designed and used inappropriate sealants that could not contain the gas created during the procedure, releasing a toxic vapour cloud.

Cristal Pigment UK Ltd pleaded guilty to the following charges: Sections 2(1) and 3(1) of the Health and Safety at Work etc. Act 1974, for the 2010 incident and also Regulation 4 of the Control of Major Accident Hazards Regulations 1999 for the 2011 incident. The company was fined £1.8 million and £600,000 for the charges associated with the incident on 5th March 2010 and fined £600,000 for the charges associated with the incident on 27th July 2011, with costs of £37,868.00.

## WINDOW FITTER IN COURT AFTER WORKER SUFFERED FATAL HEAD INJURIES

A Southampton window installation company has been fined after a worker suffered fatal head injuries following a fall from a ladder.

Brighton Magistrates Court heard how Mark Taylor, 48, a window fitter from Southampton, was helping in the installation of UPVC windows at a 3-storey house in Brighton on the 10th September 2014. He was working from an unsecured ladder when it slipped sideways and he fell to the ground. The father of two was taken to hospital suffering from head injuries but died the following day.

The HSE investigation found Kevin McLean, trading as South Coast Installations, failed to ensure that the work at height was adequately planned and carried out in a manner, which was safe.

Kevin McLean, trading as South Coast Installations, pleaded guilty to breaching Regulation 4(1) of the Work at Height Regulations and was fined £10,000 and was ordered to pay £6,250.00 costs.

## THREE FINED AFTER MAN LOSES LIFE DUE TO FALL THROUGH FRAGILE ROOF

A company, its director, and a self-employed contractor have all been prosecuted by the HSE after Terry Lewis (a 65 year old retired mechanic) was fatally injured by falling through a roof light.

Warrington Crown Court heard how on 11th June 2013, Terry Lewis was working with his friend, Leigh Bakewell. They were cleaning roof lights on the roof of a building at Radnor Park Industrial Estate, Congleton. Mr Lewis fell approximately 7m through a roof light



to the work-shop floor underneath, and subsequently died. Both the roof and the roof lights were not able to support the weight of a person.

The HSE investigation found that Leigh Bakewell, who primarily was a gardener and not a roofer, did not take precautions to prevent a fall through the roof, nor off its edge. He did not have the necessary knowledge or competence to carry out the work.

Roman Lodge Asset Management Limited failed to have adequate systems in place to ensure a competent roofer was appointed. Both the company and Jonathan Marshall failed to adequately plan and supervise the work, due to their own lack of understanding of standards and the law relating to work on fragile roofs.

Roman Lodge Asset Management Ltd pleaded guilty to breaching Regulation 4(1) and Regulation 5 of the Work at Height Regulations 2005, and were fined £20,000 with £8,010.00 costs.

Its director, Jonathan Marshall, pleaded guilty to breaching two counts of Section 37 of the Health and Safety at Work etc. Act 1974. He was sentenced to four-months imprisonment on each count (suspended for 12 months) and was ordered to pay £8,010.00 costs.

At a hearing on 18th August 2016, Leigh Bakewell pleaded guilty to breaching section 3(2) of the Health and Safety at Work etc. Act 1974. He was sentenced to six-months imprisonment (suspended for 12 months) and was ordered to pay £8,610.47 costs.

HSE inspector Warren Pennington said after the hearing: "This is an incredibly sad case all round. Each defendant knew that the roof was fragile and each accepted unsafe working practices. Terry Lewis was only on the roof in order to help out his best friend. If Roman Lodge and Jonathan Marshall had asked questions about Leigh Bakewell's experience and knowledge (of roof work standards), they would not have employed him. Leigh Bakewell should have recognised he was not competent and should not have carried out the work. With these simple considerations, Mr Lewis would not have been on the roof and would not have died in the way he did."

## INTERNATIONAL ENGINEERING COMPANY IN COURT OVER WORKERS DEATH

An international engineering company has been sentenced following the death of a worker who fell 30 feet from an electricity pylon.

Vincent John Richards, 49, was installing fall arrest lines for painters to use on the pylon at Great Orton, Carlisle on the 5th July 2014 when the incident happened.

The HSE investigated the incident and prosecuted Bilfinger Industrial Services (UK) Limited for serious safety failings.

Carlisle Crown Court heard that Mr Richards, who was employed by the company as a "Rigger", had been working with a colleague preparing the pylons in readiness for painters to carry out maintenance work. On the morning of the incident, Mr Richards arrived at pylon FT37 and found that the painters had already commenced painting even though the pylon had not been rigged. Mr Richards had climbed approximately 30ft up the pylon, when he fell backwards, narrowly missing one of the painters working directly below him.

As a result of the fall, Mr Richards sustained serious multiple injuries and died at the scene.

The HSE investigation found a number of failings by Bilfinger Industrial Services (UK) Limited in the management of risks arising from work at height. Although the company had a system of work they failed to implement, monitor and enforce this system. This failing exposed their employees to the risk of death.

Bilfinger Industrial Services (UK) Limited, on 17th November 2016, pleaded guilty to a breach of Section 2 (1) of the Health and Safety at Work etc. Act 1974 and was fined £200.000 and ordered to pay costs of £59,320.10

## CONSTRUCTION COMPANY FINED AFTER WORKER FELL 6 METERS

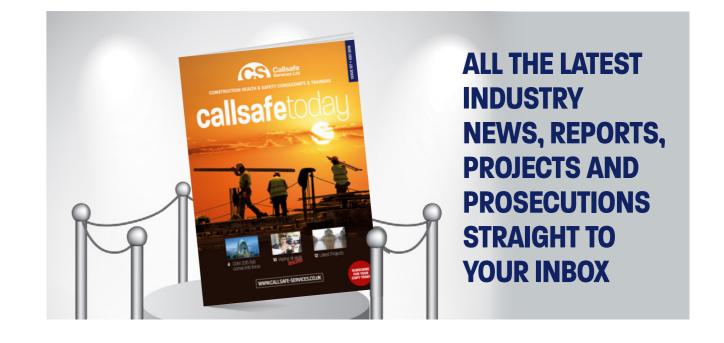
A Derbyshire based engineering construction company has been prosecuted after a worker fell and suffered severe injuries.

A worker was repairing a fibreboard roof of a barn and using two homemade crawling boards when he fell 6meters on to the floor below, sustaining serious injuries to his head, hip, and lungs.

Derby Magistrates Court heard how at the time of the incident, 30th July 2014, he was working as part of a pair of workers to replace the roofing panels. One of his colleagues was under the roof in a 'man basket' that has been attached to a telehandler, when the incident happens he had to climb down the boom of the machine to help his colleague.

An investigation by the HSE found that there were not sufficient platforms or coverings for the roof to protect workers from the fall. The risk assessment and method statement, which would have told the workers how to run the work was in the office, but also not specific to the job. There were also no separate controls for the man basket, leaving the worker stranded when his colleague fell.

Allen and Hunt Construction Engineers Ltd pleaded guilty to Sections 4(1), 7 and 9(2) of the Working at Height regulations and was fined a total of £267,000 and ordered to pay costs of £7,750 and a victim surcharge of £120.





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