

Construction and Maintenance Health, Safety and Wellbeing Briefing May 2018

IOSH Launch Fourth Phase of 'No Time to Lose' Campaign

Mesothelioma is a "despicable disease" but there is an opportunity to "fight it head-on", delegates at the launch of the fourth phase of IOSH's No Time to Lose campaign heard.

Key stakeholders and industry professionals came together to hear how the Institution plans to raise awareness of the risks of exposure to asbestos – the most deadly carcinogen – in workplaces.

The event was held on Monday 9 April at BMA House in London. On the same day, an IOSH-organised thunderclap – a social media tool used to spread a message as wide as possible – was sent out from 295 social media accounts, reaching an audience of nearly half a million. Every year, well over 100,000 people die across the globe from an asbestos-related disease, yet an estimated 125 million are still exposed at work annually.

In the UK alone, the annual death toll from asbestos-related diseases caused by workplace exposure stands at about 5,000.

The most common of these diseases is mesothelioma. Liz Darlison, Director of Services at the charity Mesothelioma UK, described NTTL as a "wonderful campaign" and urged delegates to take action.

https://www.iosh.co.uk/VP/Home/Toolkit/IOSH-No-Time-to-Lose-Campaign.aspx



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Hub H&S campaign – MEWP Lifting Operations - May 18

Following on from the H&S campaign for last month which covered scaffolding (working at height), this month's campaign also focuses works being undertaken on the BMV JV M5/J1-2 Oldbury Viaduct Renewal Scheme in the West Midlands.

This latest campaign covers use of Mobile Elevating Work Platforms (MEWP's) to enable safe access to areas, typically required from beneath to reach the soffit of the M5 Oldbury Viaduct structure, referred to as a motorway on concrete stilts

The campaign comprises of a supporting notes document together with an assortment of attachments that includes the following, all of which have been use / are to be used to assist in the safe management of MEWP operations on site:

- International Powered Access Federation (IPAF) briefings, Tool box talks, guidance docs and posters, and links to short duration videos covering "pre-start inspection"
- National Platforms Limited (NPL) product information and guidance documents
- Morgan Sindall MEWP standards and associated documentation
- Highways England Raising the bar documents that refer to plant and equipment (RtB 1) and working at height (RtB 16)

Background information:

- With the M5 Oldbury Viaduct scheme requiring a need to access the underside of the structure to carry out hundreds of concrete repairs to the soffit of the structure, referred to as "inclusions", the site team has sought assistance from MEWP provider, Nationwide Platforms Limited (NPL)
- Planning and preparation for use of Mobile Elevating Work platforms (MEWP's) to enable safe access to carry out repair works are now well in hand
- With assistance provided by NPL, training of site based personnel that commenced in February 2018, is continuing, and has included (1) MEWP for managers, (2) IPAF training for operators, and (3) familiarisation training, the latter available for all personnel to be involved in tasks that will require use of MEWP's.
- Familiarisation training includes a short duration classroom briefing, practical demonstration and lowering procedures for each type/model to be used, and the safe use and inspection of safety harnesses and lanyards. This training is delivered at site
- NPL has also provided their new Virtual Reality Training Simulator (VR Simulator) to train existing MEWP operators at the M5 Oldbury Viaduct scheme during weeks commencing 16 and 23 Apr 18.

This was the 1st time (anywhere) that NPL has used this technology for training

- In addition, the scheme will also be using SkySentry (preventing unauthorised or mistaken use), SkySiren PCS (protection against the risk of anti-entrapment) and SkyScreen systems (prevention for objects dropping from the platform basket), all provided by NPL
- The Viaduct scheme works are approx. 3km in length, around 1.7km of which is above or next to protected watercourses. As a result, MEWP's to be used adjacent to watercourses are to use "Biodegradable Oil"
- ■Following substantial completion of repairs works requiring MEWP access, BMV and NPL are to produce a "Case study" document (file) for the M5 Oldbury Viaduct scheme

The campaign resources can be found here; http://www.highwayssafetyhub.com/overhead-hazards-april-2018.html



MEWP Training using Virtual Reality Simulator



The MEWP VR simulator creates a virtual reality by enabling the user to navigate through a virtual environment by handling a replica control panel whilst standing on a responsive platform. The unit simulates a variety of scenarios involving both types of mobile elevating working platforms currently in use on the market i.e. the scissor and boom lifts. The simulator then returns a score at the end of the activity which reflects how safely and smoothly the MEWP was operated throughout the simulation exercise.

Why are we using the VRTS?

Our primary objective is to mitigate the risks associated with the operation of MEWPs on the project, particularly due to the restricted access under the structure and the proximities of the canal and public footpaths. The VRTS is being used as part of our MEWP operator's on-boarding process. Therefore each MEWP operator is required to undertake a 'familiarisation training' before they are allowed to work out on site, and this involves the simulated operation of a MEWP in scenarios adapted to our site conditions. This process is designed to give us further assurance that our operators have the skills and competencies that we require from the outset.

Further details can be found here; http://www.highwayssafetyhub.com/uploads/5/1/2/9/51294565/ bs72 mewp vr training.pdf

The introduction of ground-breaking virtual reality simulators are designed to allow operators a true-to-life look and feel of operating an access platform in a safe and controlled environment. This Simulator realistically simulates the sensation of boom and scissor operations.

The Oldbury Viaduct overlaps roads, canals, railway lines and footpaths. In some areas it offers little practical access to the underside by conventional scaffolding and the use of MEWPs overcomes these accessibility issues.

Highways England Safety Alerts

Safety Alert hei046 – Overhead Service Strike Safety Alert hei047 – Lifting Incident Safety Alert hei048 – Overturned Excavator

For these and previous alerts follow this link; http://www.highwayssafetyhub.com/alerts.htm

Highways England uses VR to expose blind spots

Highways England is using virtual reality to raise commercial drivers' awareness of their blind spots – particularly those from abroad – and reduce the risk of incidents.

Highways England have developed a free app which will be accessible on a smartphone attached to a simple pair of glasses so drivers can use it before they get behind the wheel.

The app has been developed to identify the importance of adjusting mirrors to cater for driving in a in the UK and includes five road safety scenarios for both left and right hand drive vehicles.

John Walford, Highways England's commercial vehicle incident prevention team leader, said: 'We have set ourselves the long-term vision that no-one should be harmed while travelling or working on our roads, and within that it is doing all we can to help reduce collisions involving lorries because they tend to have a greater impact when they do occur.

They most commonly occur when trucks change lanes or attempt to overtake and using this technology allows us to provide a realistic environment for commercial vehicle drivers so that they can experience the impact of not using their mirrors to check blind spots.

'It's just one of the steps we're taking to help improve safety for this valuable group of drivers and ultimately everyone who uses our network.'

The five scenarios are:

- mirror adjustment
- identifying vehicles in blind spots
- joining a motorway from a slip road
- overtaking
- tailgating

Highways England stated that although the app was developed for commercial vehicle drivers it could also benefit private motorists by giving them a sense of what commercial vehicle drivers experience every day - for example, helping them to understand the location of commercial vehicle blind spots and hence reduce the potential for incidents.



It added that the app is just an example of the safety initiatives that has developed as part of its commercial vehicle incident prevention programme. The programme includes initiatives to improve the design and maintenance of commercial vehicles and initiatives to assist operators and drivers.

Examples include:

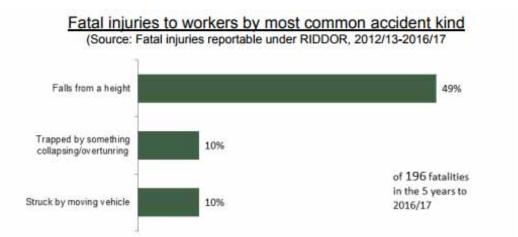
- ■a joint initiative with police using HGV cabs to target dangerously driven vehicles:
- the installation of sophisticated tyre/vehicle measurement (tyre pressure, tyre tread depth, vehicle weight, axles heat) technology at key locations;

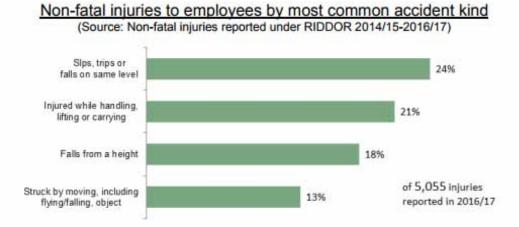
- ■initiatives with the Health &
 Safety Executive and the police
 to improve load security; and
 interventions to reduce diesel
 spillages which damage the
 carriageway and cause long
 delays.
- the development of truck stop apps in Polish and Romanian.

When launched the app will be available on the android and i-phone app stores.

HSE ANNUAL Statistics published

The HSE have recently published the annual accident statistics for the UK, the following provides information relevant to the Construction industry;





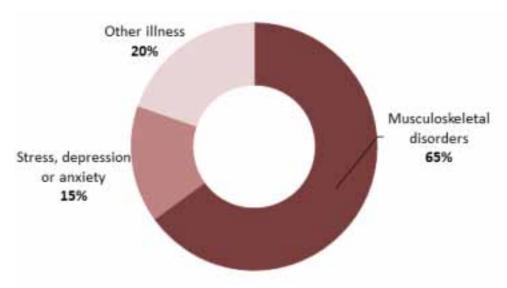
Between 2014/15 and 2016/17: Each year around 80,000 construction workers in the UK suffer from an illness they believe was caused or made worse by their work.

Around 40% of these cases were new conditions, which started during the year, while the remainder were long-standing conditions. Of these 80,000 cases:

52,000 were cases of musculoskeletal disorders (MSD), of which just under a third were new conditions;

12,000 were cases of stress,

depression or anxiety, of which around 60% were new conditions; 16,000 were cases of other illness (such as skin or respiratory conditions). Or by the different divisions of construction: 26,000 (32%) were to workers in Construction of buildings 47,000 (59%) were to workers in Specialised construction activities; and 7,000 (9%) were to workers in Civil engineering Estimated annual number of cases of self-reported work-related ill health in construction by: (i) illness kind



http://www.hse.gov.uk/statistics/industry/construction/construction.pdf

Automated system delivering safer surfacing



In an ongoing bid to raise health and safety standards, Aggregate Industries' Contracting Division has unveiled a new, state-of-the-art, automated data-gathering system that, it says, is set to make the road-surfacing process 'infinitely safer'.

Introduced in line with the company's zero-harm ethos, the new system, known as automated inspection and testing (AIT), will see all pavers, rollers and survey vehicles fitted with the latest technology, including GPS, infrared sensors and a data-recording unit – all of which will be used to automatically capture high-quality data before, during and after the surfacing process. The initiative has been designed to minimize the risk to employees during pavement construction by replacing the need for a technician to carry out the dangerous task of data capture. Investment in the system follows a number of serious incidents across the industry in recent years, including fatalities.

Neil Leake, national technical manager at Aggregate Industries, said: 'Traditionally, the road-surfacing process requires at least one or two technicians with each surfacing gang, working manually to gather and record data on everything from material temperatures to ride profile.

During this task, technicians are not only exposed to the dangers of working in close proximity to live traffic and construction vehicles, but also face a myriad of other risks including lone working and the hot-material interface. 'By removing the need for data-capture technicians altogether, our AIT system is a state-of-the-art approach that could potentially save lives – with extensive trials proving it has made the road surfacing process infinitely safer. At the same time, it will also go a long way in plugging the industry-wide skills shortage, as it means data-capture operatives can now be redeployed to other contracting areas in urgent need of skilled staff.' After consulting with materials and testing firm Mattest Southern, Aggregate Industries formulated the AIT system so that pavers and rollers can be linked together to manage the compaction process by recording the rolling temperature and the number of passes.

The final element of the AIT procedure is surface texture and rolling straight edge testing of the finished pavement using laser scanners and video recording, which can now be completed with improved accuracy and without the need for human technician involvement. The result is a complete record of the laying process with zero risk to employees.

Mr Leake added: 'The AIT system has proved to be an incredible success. Following extensive trials to determine the accuracy of the data gathered, we are now using it on a number of contracts and have seen marked improvements in safety across the board while, at the same time, providing enhanced asset-management data for our customers that also meets Building Information Management (BIM) compliance.'

Paddy Murphy, managing director of Contracting Services at Aggregate Industries, commented: 'Innovation and safety are at the heart of everything we do so I'd like to thank all those involved in this project for their bard.

Industries, commented: 'Innovation and safety are at the heart of everythin we do, so I'd like to thank all those involved in this project for their hard work and commitment in creating a system we hope will make a lasting contribution to improving safety standards across the industry.'

SKANSKA Wellbeing Passport – A Focus on Health

On 12th April 2018 Skanska launched a "Wellbeing Passport". The passport is a physical and electronic leaflet which desribes some of the different lifestyle measures that can be used to understand overall health and wellbeing and encourages staff to focus on some key areas including:

■ Body mass index

What good health looks like

below 18.5 BMI = underweight

18.5 to 24.9 BMI = healthy

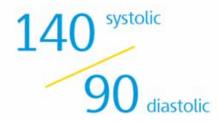
25 to 30 BMI = overweight

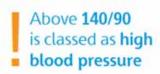
over 30 BMI = obese

■ Blood pressure

What does good health look like?

Your blood pressure reading should be lower than:





- ■Heart rate
- ■Muscle mass and body fat percentage including visceral fat
- ■Waist circumference
- ■Metabolic age
- ■Hydration

Concise and simple messages are given to encourage staff to improve their lifestyle such as:

- ■Increase physical activity 150 minutes of moderate intensity activty per week
- ■Get enough sleep aim for 7 9 hours
- ■Follow the eat well plate guide women should eat a maximum of 2000 calories per day and men a maximum of 2500 calories
- Limit alcohol to a maximum of 14 units per week

14 units is the equivalent to six pints of average-strength beer or six medium glasses of wine.



Staff are encouraged to track and monitor their progress and there is the ability for staff to book "Wellbeing Days" run through Occupational Health who will come out to site and take blood pressures, check blood cholesterol, lung function, check height and weight using Tanita body composition scales which will give you your body fat percentage etc. Skanska also offer a range of different staff wellbing benefits such as discounted gym memberships, dental plans, cycle to work, health care plans and an employee assistance programme which are all publicised in the passport.

Highways England Safety Passport'

To ensure the health, safety, and wellbeing of the workforce, Highways England together with the supply chain launched a Safety Passport on 8 November 2017. The passport will help validate and maintain the standards of all those working on the strategic road network.

The Safety Passport is initially a two-year proof of concept project and all Tier 1 contractors have been involved in designing the standards and training that will be adopted nationally including the Highways England Safety Common Induction.

Some of the benefits of the Passport Scheme include:

- A reduction in the time spent on generic safety inductions and the collection and verification of competency cards and training certificates
- A greater emphasis on task specific health and safety inductions/ briefings
- Ensuring that all the workforce understands Highways England's expectations and standard safety rules that apply when working on the network
- A smart solution to verify that 100% of people accessing the network hold the correct competencies for their job role
- A record of safety critical medical and any relevant work restrictions

Information held on the Safety Passport card is stored on the smartcard's chip, the data is secure and encrypted and updates through regular use, rather than details being printed on the actual card itself. This means that a single card can be used to validate an individual's regardless of how often changes are made to competence or medical records.

In the longer term, the card is hoped to be developed further to streamline frontline processes further by:

- ■Providing a lone worker support solution
- Access control to site
- Measuring and managing fatigue risk

For more information about how to apply for a Safety Passport please read the FAQ document available at this link: http://www.highwayssafetyhub.com/safety-passport-proposal.html

This short video link could also be useful to provide information to a wider audience on how the Safety Passport should benefit the industry going forwards: https://www.youtube.com/watch?v=-59WHTe05xg&feature=youtu.be

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