

**Tag: coshh**

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## **Diesel engine exhaust emissions (DEEEs) and non-road mobile machinery (NRMM) – the risk to construction (and other) workers**

We hope you find our news updates useful. If you know of anyone who may benefit from reading them, please encourage them to register at the bottom-left of our news page (<http://www.eljay.co.uk/news/>) and we'll email them a link each time an update is published. If in the unlikely event any difficulties are experienced whilst registering we'll be more than happy to help and can be contacted on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk)

Recent headline news has made us all too aware of the effects of air pollution on the climate and our health, and this is contributed to significantly by emissions from combustion engines installed in non-road mobile machinery (NRMM) – used extensively in the construction industry. The Mayor of London has responded by targeting the sector with the world's first “ultra-low emissions zone” for NRMM and – nationwide – under the Clean Air Strategy, the government will be exploring the use of environmental permitting to address the problem.

Whilst “cleaner” engines have started to become available, those powered by diesel are still the most widely used on construction sites, and inhalation of diesel engine exhaust emissions (DEEEs) can cause a number of ill health effects – both short term and long term, including – evidence suggests – an increased risk of lung cancer. According to HSE statistics, each year, around 3,000 workers in construction suffer with breathing and lung problems they believe were caused or made worse by their work. That is 0.14% of workers in the sector, compared with 0.09% of workers across all industries.

So, what should be done to prevent this risk?

The below HSE guidance “Control of diesel engine exhaust emissions in the workplace” includes control measures which can be implemented quickly and easily on a construction site and in other workplaces, e.g. switching off engines when not required, and adopting a programme of regular engine maintenance.

But a reduction in pollution can also be achieved through the use of cleaner fuels. Alternatives include low sulphur diesel (LSD), ultra low sulphur diesel (ULSD), biodiesel, blends of biodiesel with petroleum diesel and emulsified diesel. Low sulphur diesel has sulphur content of 300 – 500ppm and reduces particulate matter (PM) by 10 – 20% compared to non-road diesel fuel (which has a sulphur content of 3000 – 5000ppm).

And pollution control equipment such as diesel oxidation catalysts or diesel particulate filters can be retrofitted directly onto an engines exhaust system.

Under CDM 2015, design decisions made during the pre-construction phase of projects should also be considered, as these too have a significant influence on the health and safety of everyone affected by the work. For example, lighter buildings, often delivered by low carbon building methods (with no increase in cost), can reduce on-site excavation and heavy machinery due to the requirement for smaller foundations. An example of this is the timber structure of Dalston Works in London which weighs a fifth of its concrete equivalent. And as most the construction was off-site, there were 80% fewer site deliveries than usual.

The below guidance can be downloaded by clicking the link: [http://www.hse.gov-  
.uk/pubns/priced/hsg187.pdf](http://www.hse.gov.uk/pubns/priced/hsg187.pdf) and more information is available on the HSE web page: [http://www.hse.gov.uk/construction/healthrisks/cancer-and-construction/diesel-engine-ex-  
haust.htm](http://www.hse.gov.uk/construction/healthrisks/cancer-and-construction/diesel-engine-exhaust.htm). Alternatively, please contact us on [07896 016380](tel:07896016380) or at [fiona@eljay.co.uk](mailto:fiona@eljay.co.uk), and we'll be happy to help.

### **Control of diesel engine exhaust emissions in the workplace**

## Legislation

The law requires that a suitable and sufficient assessment of the risks to health which arise from exposure to hazardous substances is made, eg DEEEs. This is covered by the Health and Safety at Work etc Act 1974 and several other regulations, in particular the Control of Substances Hazardous to Health Regulations 2002 (as amended) (COSHH) and the Management of Health and Safety at Work Regulations 1999. Having completed the assessment, there is a further duty to take the necessary steps to prevent or adequately control exposure to the hazard, and to use and maintain the relevant controls.

### Risk assessment (COSHH regulation 6)

The health risk assessment will help you to assess the risks to health from exposure to hazardous substances and identify the necessary steps needed for controlling these risks. As workload, frequency of work, and work practices may change over a period, it is necessary to regularly review the assessment. In all but the simplest cases, you should record the assessment.

For DEEEs, the aim of the health risk assessment is to decide on the level of potential exposure, and then on the preventive measures or the level of control which you will need to apply. For example, if there is obvious blue or black smoke in the workplace, the controls need to be more stringent. In some circumstances, such as if there are visible exhaust emissions or complaints of irritancy, the assessment may necessitate carrying out monitoring to assess the effectiveness of the controls.

In order to carry out a suitable and sufficient risk assessment you need to ask a series of questions, find answers and then come to a conclusion. These questions include:

- How likely is it that exposure to DEEEs will happen?
- Who could be affected, to what extent and for how long? How many people are potentially exposed to the DEEEs? Can the exposures be avoided?
- Have there been any ill-health complaints from potentially exposed groups? If yes, what has been done about it?
- Is the engine being operated at full speed or left idling? What is the purpose of running at idling speed or full speed. Can it be avoided?
- What is the state of the engine, and how many miles or hours have been completed? Can the engine efficiency be improved, and can operating times and distances be reduced? Improving the efficiency of the engine will also bring financial benefits.
- What happens to the exhaust emissions: do they enter directly into the workplace, or are they piped away or processed through a treatment system? Could they trigger your fire

detection system?

- Is there visible smoke near the exhaust point? What is the type of smoke, ie white, black or blue? How could it be avoided? Is there a visible haze in the workplace? Can it be avoided and how?
- What controls are in place to comply with COSHH? Are they satisfactory?
- Are there soot deposits in the workplace; how significant are they? What can be done to avoid them? What methods are in place for regularly cleaning the workplace?
- How many engines are running at any one time? Are they all necessary?
- Is it necessary to use diesel engines, or can alternative power sources be used?

### **Prevention and control of exposure (COSHH regulation 7)**

The answers to the questions in paragraph 17 will guide you in deciding on the actions necessary to prevent or control exposure to DEEEs in the workplace. The control measures you choose need to be based on: the levels of risk and exposure; the type of workplace; present work practices; cost and benefit factors. Because of the variety of workplaces where exposure may occur, the potential exposure and the level of risk will be different. For example, there may be increased exposure where fork-lift trucks are being used in a warehouse all day for moving goods, whereas in a maintenance depot the exposure may be intermittent as the vehicles enter, stay there for maintenance, and then leave.

#### Prevention

Health and safety legislation requires you to prevent the exposure of employees and others to substances hazardous to health. You should be able to prevent exposure to DEEEs by adopting one or a combination of options, for example:

- changing the method of work;
- modifying the layout of the workplace;
- modifying the operations to eliminate exhaust emissions inside the workplace; or
- substituting diesel fuel with a safer fuel or alternative technology where practicable, eg compressed natural gas, battery powered vehicles.

Your risk assessment should take account of any other risks posed by these alternative fuels and technologies, for example the use of alcohols may generate greater quantities of aldehydes with possible accompanying irritancy.

#### Control

There will be situations where it may not be reasonably practicable for you to prevent exposure to DEEEs. In these situations, you should consider the circumstances individually and take the necessary control measures to reduce exposure. These may include:

#### *Engineering controls*

- the use of lower emission or more fuel-efficient engines where possible, eg higher engine injection pressures to reduce particulates, fitting exhaust gas recirculation systems to reduce gaseous oxide emissions;
- the use of cleaner fuels such as low sulphur diesel fuels;
- enclosing the exhaust tailpipe from which DEEEs are emitted, for example by using a fixed flexible hose with a tailpipe exhaust extraction system (see Figures 2 and 3);
- using partial enclosure with local extraction ventilation (LEV) as shown in Figure 4;
- the use of diesel exhaust gas ‘after-treatment’ systems such as catalytic converters to oxidise organic substances and gases, and catalysed and non-catalysed particulate traps to remove particulate matter;
- using a combination of LEV and sufficient general ventilation, eg tailpipe exhausts with open doors or roof extraction;
- using sufficient general ventilation, eg manual or mechanical roof extraction;

#### *Practice and administrative controls*

- using processes or systems of work which will help you to reduce the generation of DEEEs, for example switching off engines when not required for a substantial period of time and adopting a programme of regular engine maintenance;
- where practicable, reducing the number of employees directly exposed and their period of exposure, eg ensuring that office staff working adjacent to DEEE areas are not exposed, job rotation; and

#### *Respiratory protective equipment (RPE)*

- as exposure to DEEEs is best controlled at source or by other means as described previously, RPE should only be used as a last resort. The RPE chosen should be suitable for protecting against the gaseous and particulate components. The use of nuisance dust masks as worn by cyclists are ineffective against DEEEs and, therefore, should not be used as a means of control in the workplace. Detailed information on RPE for use in the workplace can be found in the HSE guidance book HSG53 Respiratory protective equip-

ment at work: A practical guide.

### **Use of control measures (COSHH regulation 8)**

You should ensure that any control measures are properly used or applied. Employees should make full and proper use of any control measure or personal protective equipment provided by the employer, and report any defects to management for immediate attention.

### **Maintenance, examination and the testing of control measures (COSHH regulation 9)**

You should ensure that all the measures provided to control exposure to DEEEs in the workplace are maintained in an effective state, and kept in efficient working order and in good repair. Where engineering controls are used, they should be thoroughly examined and tested at suitable intervals. LEV, for example, should be thoroughly examined and tested at least once every 14 months.

With the exception of disposable filtering facepiece respirators intended for single shift use, RPE should not be used unless it has had a recent thorough examination and maintenance. The interval between thorough examination and maintenance should not be more than one month.

You should keep a record of such examinations and tests of LEV and RPE for at least five years from the date on which they were made. The record should be readily available for inspection by employees or their representatives, or by enforcement authorities.

### **Monitoring for exposure to DEEEs in the workplace (COSHH regulation 10)**

Under regulation 10 of COSHH, monitoring at the workplace may be required for the following reasons:

- to determine if there is a failure or deterioration of the control measures which could result in an obvious health effect, eg irritancy from exposure to DEEEs;
- to determine whether any workplace exposure limit (WEL) or any in-house working standard has been exceeded; and
- when necessary to check the effectiveness of a control measure provided, eg particulate filter, LEV and/or general ventilation.

The health risk assessment will help you decide if it is necessary to carry out monitoring, for example, to judge the effectiveness of controls. A suitable monitoring strategy, as determined by a competent person such as an occupational hygienist, will indicate whether personal monitoring, fixed placed (static) monitoring, or both are required. It will show which site(s) require monitor-

ing, when and how often, and which sampling and analytical methods would be appropriate.

### **Personal monitoring for exposure to DEEEs**

You may need to carry out personal monitoring to determine the extent of inhalation exposure to DEEEs, and hence the level of risk. Personal monitoring samples should be collected in the breathing zone of the employees. Such samples should be collected where there is a significant potential for exposure during their working shift and include peak exposures, eg while repairing or testing/maintaining an engine, while driving a fork-lift truck or during lashing in ro-ro ferries.

The duration of sampling depends on the workplace situation, such as the nature of the work and the type of monitoring. However, to collect sufficient material from the workplace air and determine the time-weighted average (TWA) exposure, sampling periods will mainly be between six and eight hours. In some instances though, depending on the circumstances, short-term measurements may be all that is required to make decisions on the risk of exposure and level of control. The number of people you decide to sample at each location will depend on the nature of exposure and size of the exposed workforce, for example:

- processes or operations where exposures are likely to occur;
- the number, type and position of sources from which the DEEEs are released; and
- which groups of employees are most likely to be exposed.

### Fixed place monitoring

Fixed place monitoring is appropriate in those areas of the workplace where it is impractical to collect personal samples, eg outside a toll booth. Such fixed sampling is useful for determining the effectiveness of your control measures and for measuring background concentrations of DEEEs.

### What substances to monitor

Levels of carbon dioxide (CO<sub>2</sub>) above 1000 ppm 8-hour TWA in the workplace, may indicate faulty, poorly maintained or inadequately designed control systems in particular LEV or roof extraction systems. As measurement of the CO<sub>2</sub> level is easily carried out and because it is a useful indicator of the overall adequacy of control measures, it may be used as one of the steps in any assessment of the level of exposure to DEEEs.

Respirable dust levels may be measured to help you assess the particulate exposure if, for example, the workload is particularly heavy. However, the levels measured will include particulates from all sources and not just the DEEEs.

In situations where personal exposure to carbon monoxide (CO) may be high (such as at toll booths and in car parks where the majority of vehicles are petrol driven) measurement of CO will provide an indication about the adequacy of controls.



Irritancy

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As the definite causes of irritancy are unknown, if any of your workforce complain of this health effect, it is important to look for better means of control rather than to monitor for other gaseous constituents of DEEs.

### **Health surveillance (COSHH regulation 11)**

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Under COSHH, no formal health surveillance is required by employers of those exposed to DEEs or related emissions. However, if employees are concerned about the short or long-term health effects of exposure to DEEs, they should discuss the problem with management. If still not satisfied with the outcome, they should voice their concerns with their union representative if available or the works safety representative. Furthermore, if management notices that employees are suffering irritancy effects following exposure to DEEs, it may indicate that the controls have failed and prompt action is required.

Employers must provide information on health and related matters to employees or their representatives in accordance with the Safety Representatives and Safety Committees Regulations 1977 and the Health and Safety (Consultation with Employees) Regulations 1996. Such information allows employees or their representatives to help employers develop control measures.

### **Information, instruction and training (COSHH regulation 12)**

Adequate information, instruction and training should be given to employees on the health hazards associated with occupational exposure to DEEs and on the proper use of control measures. This information should also be made available to employee safety representatives or other appropriate people.

The information, training and instruction should enable employees to recognise obvious deterioration in the controls used (such as poor maintenance of engines, damage to extraction equipment or ineffective general ventilation), so they can report to employers who would then take the necessary action to rectify the situation.

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📅 9th May 2019 🔖 advice, air pollution, biodiesel, black smoke, blue smoke, breathing, building, building sites, carbon dioxide, carbon monoxide, catalysed particulate traps, catalytic converters, CDM 2015, clean air strategy, cleaner engines, cleaner fuel, cleaner fuels, climate, climate change, clt, CO, CO2, combustion engines, construction, construction sites, construction workers, control of diesel engine exhaust emissions in the workplace, control of substances hazardous to health, coshh, cross laminated timber, deees, deposits, diesel, diesel engine exhaust emissions, diesel oxidation catalyst, diesel oxidation catalysts, diesel particulate filter, diesel particulate filters, emissions, emulsified diesel, engines, environmental permitting, exhaust, exhaust gas recirculation systems, fixed place monitoring, fork lift trucks, forklift trucks, fuel, fuel efficient engines, gaseous oxide emissions, guidance, hazardous substances, health, health and safety, health and safety executive, health surveillance, higher engine injection pressure, hse, industry, inhalation, irritancy, lev, local extraction ventilation, long term health effects, low carbon, low carbon building methods, low sulphur diesel, lower emission engines, lsd, lung cancer, methods, MMC, MMOC, modern methods of construction, news, non catalysed particulate traps, non road diesel, non road mobile machinery, NRMM, off site construction, particulate matter, particulates, personal monitoring, petroleum diesel, pollution control equipment, pollution reduction, respirable dusts, respiratory protective equipment, retro fit, retro fitting, retrofit, retrofitting, roof extraction, rpe, short term health effects, smaller foundations, soot, tailpipe exhaust extraction, timber structure, ulsd, ultra low emissions zone, ultra low sulphur diesel, updates, visible exhaust emissions, wel, white smoke, workplace, workplace exposure limit, workplace exposure limits 🗨️ Leave a comment

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## Control of legionella (and other) bacteria in metal working fluids (MWFs)

Legionella bacteria are commonly found in water supplies at low concentrations and if conditions (eg temperature and nutrients) are right, these microorganisms will grow. Water mix metal working fluids (MWFs) are mostly water and their industrial use may produce aerosols. Inhaling an aerosol contaminated with Legionella bacteria can cause Legionnaires' disease. HSE guidance L8 "Legionnaires' disease. The control of legionella bacteria in water systems" recommends that the MWF storage and distribution system of lathe and machine tool coolant systems should be cleaned and disinfected every six months or more frequently if recommended by machine tool or fluid suppliers.

However, the Health and Safety Laboratory has carried out research, Survival of Legionella pneumophila in metalworking fluids, which shows there is a minimal risk of Legionella bacteria contaminating such a system, if the system is properly managed.

HSE's guidance on managing bacterial contamination of metalworking fluids suggests a risk-

based approach, based on monitoring fluid condition and bacterial contamination:

<http://www.hse.gov.uk/metalworking/bacterial.htm>

If you can demonstrate that metalworking fluids are managed in accordance with the COSHH essentials sheet Managing sumps and bacterial contamination (<http://www.hse.gov.uk/pubns/guidance/mw05.pdf>) and HSE's guidance on managing bacterial contamination in metalworking fluids an additional assessment of the risk of Legionnaires' disease is normally unnecessary. However, further assessment and precautions will be necessary to cover any special circumstances, such as deep cleaning of sumps and machinery with jet washers, where the potential for exposure to airborne hazardous bacteria is much greater. This is due to the disturbance of microbial slime known as biofilm – where Legionella may survive. Avoid water jetting where possible, as it tends to create fine water droplets or mists.

If water jetting is necessary carry out a risk assessment, to include respiratory and other risks such as those arising from the use of high pressure and electricity, see,

- Respiratory protective equipment (RPE) and (<http://www.hse.gov.uk/respiratory-protective-equipment/index.htm>)
- do you use a steam / water pressure cleaner? (<http://www.hse.gov.uk/pubns/indg68.pdf>)

More guidance on metalworking fluids can be found on the HSE web page:

<http://www.hse.gov.uk/metalworking/index.htm>

For more information on controlling the risk of Legionnaires' disease, see Legionella and Legionnaires' disease: <http://www.hse.gov.uk/legionnaires/index.htm>, or contact us on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk), and we'll be happy to help

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📅 6th May 2019   🔍 advice, aerosols, airborne, bacteria, bacterial, biofilm, cleaning, contamination, control, coolant, coshh, deep cleaning, disinfection, distribution, electricity, essentials, fluid, guidance, hazardous, health and safety executive, high pressure, hse, inhalation, inhaling, jet washers, lathe, legionella, legionnaires disease, machine, machinery, managing, metal working fluid, metal working fluids, metalworking fluid, metalworking fluids, microbial, mwf, mwfs, pressure, respiratory, respiratory protective equipment, risk, risks, rpe, slime, steam, storage, sumps, systems, tool, water jetting, water mix   💬 Leave a comment

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# COSHH advice sheets updated for woodworking industry

We hope you find our news updates useful. If you know of anyone who may benefit from reading them, please encourage them to register at the bottom-left of our news page (<http://www.eljay.co.uk/news/>) and we'll email them a link each time an update is published. If in the unlikely event any difficulties are experienced whilst registering we'll be more than happy to help and can be contacted on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk)

HSE's suite of direct advice sheets specific to the woodworking industry has been updated, and can help employers, the self-employed and franchisees comply with COSHH regulations.

The new sheets set out what to do to reduce exposure to substances such as wood dust to an adequate level, and protect workers health.

## **Direct advice sheets for the woodworking industry**

This information will help employers, the self employed and franchisees to comply with the Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended, to control exposure to wood dusts, etc, and protect workers health.

**WD0: Advice for managers:** <http://www.hse.gov.uk/coshh/essentials/direct-advice/woodworking.htm#advice-managers>

**WD1: Bandsaws:** <http://www.hse.gov.uk/coshh/essentials/direct-advice/woodworking.htm#bandsaws>

**WD2: Circular bench saws:** <http://www.hse.gov.uk/coshh/essentials/direct-advice/woodworking.htm#circular-bench-saws>

**WD3: Cross-cut saws:** <http://www.hse.gov.uk/coshh/essentials/direct-advice/woodworking.htm#cross-cut-saws>

**WD4: Vertical spindle moulders:** <http://www.hse.gov.uk/coshh/essentials/direct-advice/woodworking.htm#vertical-spindle-moulders>

**WD5: Overhead and CNC routers:** <http://www.hse.gov.uk/coshh/essentials/direct-advice/wood->

[working.htm#overhead-CNC-routers](#)

**WD7: Hand-held sanding machines:** <http://www.hse.gov.uk/cosHH/essentials/direct-advice/woodworking.htm#hand-held-sanding-machines>

**WD10: Wall saw:** <http://www.hse.gov.uk/cosHH/essentials/direct-advice/woodworking.htm#wall-saw>

**WD11: Surface planer:** <http://www.hse.gov.uk/cosHH/essentials/direct-advice/woodworking.htm#surface-planer>

**WD12: Fixed sanding machines (narrow belt):** <http://www.hse.gov.uk/cosHH/essentials/direct-advice/woodworking.htm#fixed-sanding-machines-narrow-belt>

**WD13: Fixed sanding machines (disc):** <http://www.hse.gov.uk/cosHH/essentials/direct-advice/woodworking.htm#fixed-sanding-machines-disc>

**WD14: Fixed sanding machines (drum/bobbin):** <http://www.hse.gov.uk/cosHH/essentials/direct-advice/woodworking.htm#fixed-sanding-machines-drum-bobbin>

**WD15: Chop saw:** <http://www.hse.gov.uk/cosHH/essentials/direct-advice/woodworking.htm#chop-saw>

**WD17: Suction hose attachment for cleaning:** <http://www.hse.gov.uk/cosHH/essentials/direct-advice/woodworking.htm#suction-hose-attachment-for-cleaning>

For more advice on managing woodworking safely visit: [http://www.hse.gov.uk/woodworking/index.htm#utm\\_source=govdelivery&utm\\_medium=email&utm\\_campaign=digest-10-apr-19&utm\\_term=woodworking&utm\\_content=cosHH-advice-sheets](http://www.hse.gov.uk/woodworking/index.htm#utm_source=govdelivery&utm_medium=email&utm_campaign=digest-10-apr-19&utm_term=woodworking&utm_content=cosHH-advice-sheets)

For more advice of control of substances hazardous to health visit: <http://www.hse.gov.uk/cosHH/>

Or contact us on [07896 016380](tel:07896016380) or at [fiona@eljay.co.uk](mailto:fiona@eljay.co.uk), and we'll be happy to help

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📅 30th April 2019    🔍 advice, advice for managers, advice sheets, attachment, bandsaws, bobbin, chop saw, circular bench saws, cleaning, cnc routers, control of substances hazardous to health, coshh, coshh regulations, cross cut saws, direct advice sheets, disc, drum, employers, fixed sanding machines, guidance, hand held sanding machines, health and safety executive, hse, narrow belt, overhead routers, Self-employed, suction hose, surface planer, vertical spindle moulders, wall saw, wood dust, woodworking, woodworking industry  
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## HSE food manufacturing inspections target the causes of workplace ill-health

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Companies and people working in food manufacturing are being told they must pay closer attention to how they manage workplace health risks or face serious penalties.

The Health and Safety Executive's (HSE) programme of proactive inspections will review health and safety standards in food manufacturing businesses across the country, and the sector is being warned that a programme of unannounced inspections will begin today (2<sup>nd</sup> January).

The inspections will focus on two of the main causes of ill-health in the sector which are currently occupational asthma from exposure to flour dust in bakeries, cake and biscuit manufacturers and grain mills and musculoskeletal disorders (MSDs) – predominantly lower back pain and upper limb disorders from manual handling activities and repetitive tasks across the sector.

The inspection visits come as HSE recently released its Manufacturing sector plan which prioritises the reduction of cases of occupational lung disease and MSDs.

Exposure to flour dust is the UK's second most common cited cause of occupational asthma. MSDs are the most common type of work-related illness in food manufacturing with handling injuries, accounting for around 20% of reported employee injuries (RIDDOR). HSE insists that such ill-health can be prevented when organisations have proper risk control systems in place.

The inspections will ensure measures are being taken by those responsible to protect workers

against health risks and HSE will not hesitate to use enforcement to bring about improvements.

HSE's head of Manufacturing Sector John Rowe, said: "The food manufacturing sector is made up of over 300,000 workers and its health and safety record needs to improve. This inspection initiative will look to ensure effective management and control of targeted health risks.

HSE is calling on anyone working in the industry to take the time to refresh their knowledge of our advice and guidance, available for free on our website.

Food manufacturing companies should do the right thing by protecting workers' health; everyone has the right to go home healthy from work."

### **COSHH and bakers – key messages**

Substances hazardous to health in baking include:

- flour dust;
- improver dusts containing enzymes etc;
- dusts from protein-containing ingredients such as egg, soya;
- spices, citrus oils and flavour concentrates;
- cleaning and disinfectant products.

Dermatitis may result from some bakery tasks, and if hands are wet many times a day or for a lot of the time.

Control measures include:

- careful working to avoid raising clouds of dust;
- dust extraction;
- vacuum or wet cleaning;
- respirator for very dusty tasks;
- skin checks.

#### Example: Flour dust

Flour dust can cause asthma when breathed in.

You must reduce exposure to flour dust as far below the WEL of 10 mg/m<sup>3</sup> as is reasonably practicable. You normally need to use health surveillance (Check employees health for any adverse ef-

fects related to work. May involve checking skin for dermatitis or asking questions about breathing and may need to done by a doctor or nurse.)

Help in finding the right controls is on the Bakers and asthma website ([http://www.hse.gov-  
.uk/asthma/bakers.htm](http://www.hse.gov.uk/asthma/bakers.htm)). Control information for flour dust appears in the following information sheets available from the COSHH essentials webpage: <http://www.hse.gov.uk/coshh/essentials/direct-advice/baking.htm>

## Employees

Your employer provides equipment to protect your health, such as:

- dust extraction;
- personal protective equipment (eg respirator).

You have a duty to use these properly and co-operate with any monitoring and health surveillance.

For advice on preventing and managing musculoskeletal disorders, visit the HSE web page <http://www.hse.gov.uk/msd/>. Alternatively, contact us about any of the above-mentioned issues, on [07896 016380](tel:07896016380) or at [fiona@eljay.co.uk](mailto:fiona@eljay.co.uk), and we'll be happy to help

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📅 16th January 2018 🔖 asthma, bakeries, bakers, bakers and asthma, baking, breathing, citrus oil, citrus oils, cleaning products, coshh, dermatitis, disinfectant products, dust, dust extraction, dusts, egg, employee injuries, enzymes, exposure to flour dust, extraction, flavour concentrate, flavour concentrates, flour, flour dust, flour dust exposure, food manufacturing, food manufacturing inspections, food manufacturing sector, grain mills, handling injuries, health & safety, health & safety executive, Health & safety news, health & safety news updates, health and safety, health and safety executive, health and safety news, health and safety news updates, health surveillance, hse, hse food manufacturing inspections, hse inspection initiative, hse inspections, hse news, improver dust, improver dusts, improvers, inspection initiative, lower back pain, lung disease, manual handling, msds, musculoskeletal disorders, occupational asthma, occupational lung disease, personal protective equipment, ppe, protein containing ingredients, repetitive tasks, reported employee injuries, respirator, respirators, respiratory

equipment, riddor, skin checks, soya, spice, spices, substances hazardous to health, unannounced inspections, upper limb disorders, vacuum cleaning, wet cleaning, workplace health risks, workplace ill health

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## **Demolition health and safety – company and contractor sentenced for uncontrolled collapse of building on high street**

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The owner of a building in Kent and the contractor employed to demolish it have been fined for safety failings after an uncontrolled collapse onto a high street.

An investigation by the Health and Safety Executive (HSE) into the collapse, which occurred in November 2013, found that the contractor had failed to properly plan the work and then carried out unsafe demolition work.

The building owner did not make any enquiries into the suitability or competence of the contractor to undertake the demolition.

Neither the building owner nor the contractor applied for a road closure and members of the public were put at risk.

The building owner pleaded guilty to breaching Regulation 4(1) of the Construction (Design and Management) Regulations 2007, and was fined £160,000 and ordered to pay costs of £9128.89.

The contractor pleaded guilty to breaching Regulation 25(1) of the Construction (Design and Management) Regulations 2007, and has been sentenced to nine months imprisonment suspended for two years.

HSE inspector Andrew Cousins said after the hearing: “Lives were put at risk when this structure uncontrollably collapsed. Clients have a responsibility to appoint competent contractors to under-



take hazardous work such as demolition.

“Those in control of demolition have a responsibility to plan demolition work and to devise a safe way of working that protects both the workers and members of the public.

“The job could have been safely carried out by simply undertaking the demolition behind a substantial hoarding.”

## **Demolition**

### **What you need to do**

The law says that all demolition, dismantling and structural alteration must be carefully planned and carried out in a way that prevents danger by practitioners with the relevant skills, knowledge and experience. Key issues are:

- Falls from height
- Injury from falling materials
- Uncontrolled collapse
- Risks from connected services
- Traffic management
- Hazardous materials
- Noise and vibration
- Fire
- Worker involvement

### **What you need to know**

A systematic approach to demolition projects is a team effort between many people, who all have responsibilities:

- Clients must appoint dutyholders who have the relevant skills, knowledge and experience and where organisations, the organisational capability, and are adequately resourced.
- Clients, with the help of the principal designer must provide those who need it (eg, designers, contractors) with pre-construction information that can reasonably be obtained. A range of surveys and reports will be needed – for example, to check for presence of asbestos; structural stability of site and nearby structures; the location of above and be-

low ground live services in the work area; etc. These should be done before work begins and not be left for the principal contractor to organise once the demolition work has started.

- Principal designers must plan, manage, monitor and coordinate health and safety issues in the pre-construction phase (i.e. before demolition starts) to give principal contractors as much information as possible to allow the principal contractor to keep people (site workers and the public) as far as possible from the risks.
- Principal contractors must plan, manage, monitor and coordinate health and safety issues during the demolition work.
- Site managers must ensure workers are supervised and are following safe working practice.
- Sub-contractors and site workers must follow the instructions and plans given to them by those in charge of the work and ensure that their colleagues do too.

### **Falls from height**

During demolition and dismantling, workers can be injured falling from edges, through openings, fragile surfaces and partially demolished floors.

Dutyholders have a responsibility to assess, eliminate and control the risks of falls from height. Find out more about falls from height: <http://www.hse.gov.uk/construction/safetytopics/workingatheight.htm>.

### **Injury from falling materials**

Workers and passers-by can be injured by the premature and uncontrolled collapse of structures, and by flying debris.

A safe system of work is one that keeps people as far as possible from the risks. This may include:

- establishing exclusion zones and hard-hat areas, clearly marked and with barriers or hoardings if necessary
- covered walkways
- using high-reach machines
- reinforcing machine cabs so that drivers are not injured
- training and supervising site workers

### **Uncontrolled collapse**

The structural survey should consider:

- the age of the structure
- its previous use
- the type of construction
- nearby buildings or structures
- the weight of removed material or machinery on floors above ground level

The method statement for the demolition should identify the sequence required to prevent accidental collapse of the structure.

### **Risks from connected services**

Gas, electricity, water and telecommunications services need to be isolated or disconnected before demolition work begins. If this is not possible, pipes and cables must be labelled clearly, to make sure they are not disturbed.

### **Traffic management**

Effective traffic management systems are essential on site, to avoid putting workers at risk of being hit by vehicles turning, slewing, or reversing. Where possible, vision aids and zero tail swing machines should be used. Find out more about traffic management

### **Hazardous materials**

Hazardous materials that should to be considered include dust, asbestos and respirable crystalline silica (RCS). There may also be material or contamination on site that has not been cleared, for example:

- acids from industrial processes
- paints
- flammable liquids
- unidentified drums
- microbiological hazards (especially in old hospital buildings).

Find out more about the control of substances hazardous to health (COSHH):

<http://www.hse.gov.uk/coshh/index.htm>

### **Noise and vibration**

Frequent exposure to loud noise can permanently damage a person's hearing. Noise can also create a safety risk if it makes it difficult for workers to communicate effectively or stops them hearing warning signals.

- More information on noise at work: <http://www.hse.gov.uk/noise/index.htm>

Vibrating hand tools used in demolition can cause hand-arm vibration syndrome (HAVS). Workers' exposure to vibration must be managed and reduced as far as possible.

- Find out more about managing the risks caused by use of vibrating tools:  
<http://www.hse.gov.uk/vibration/index.htm>

## **Fire**

Fire is a risk where hot work (using any tools that generate spark, flame or heat) is being done. During structural alteration, the fire plan must be kept up to date as the escape routes and fire points may alter. There must be an effective way to raise the alarm.

## **Worker involvement**

Everyone involved must know what precautions are to be taken on site. Workplaces where employees are involved in taking decisions about health and safety are safer and healthier. Your employees are often the best people to understand the risks in their workplace. Find out more about involving your workers in health and safety: <http://www.hse.gov.uk/involvement>

## **Resources**

### Leaflets

- Establishing exclusion zones when using explosives in demolition CIS45:  
<http://www.hse.gov.uk/pubns/cis45.pdf>

### Books

- Health and safety in construction (HSG150) paragraphs 382-397:  
<http://www.hse.gov.uk/pubns/books/hsg150.htm>

## **Useful links – other HSE sites**

- Falls from height: <http://www.hse.gov.uk/work-at-height/index.htm>
- Construction (Design and Management) Regulations 2015 (CDM 2015): <http://www.hse.gov.uk/construction/cdm/2015/index.htm>
- Asbestos: <http://www.hse.gov.uk/asbestos/index.htm>
- Noise: <http://www.hse.gov.uk/noise>
- Vibration: <http://www.hse.gov.uk/vibration>
- Control of substances hazardous to health (COSHH): <http://www.hse.gov.uk/coshh>
- Worker involvement: <http://www.hse.gov.uk/involvement>
- Research: <http://www.hse.gov.uk/research/rrhtm/rr204.htm>

### The law


- Construction (Design and Management) Regulations 2015 (CDM 2015): <http://www.hse.gov.uk/construction/cdm/2015/index.htm>
- Control of substances hazardous to health (COSHH) 2002: <http://www.hse.gov.uk/coshh/index.htm>

For more information, visit the HSE web page: <http://www.hse.gov.uk/construction/safetytopics/demolition.htm> or contact us on [07896 016380](tel:07896016380) or at [fiona@eljay.co.uk](mailto:fiona@eljay.co.uk), and we'll be happy to help

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📅 8th June 2017 🔍 above ground, age of building, age of structure, asbestos, barriers, below ground, cables, carrying out demolition safely, carrying out demolition work safely, cdm, CDM 2015, connected services, construction, construction design and management regulations 2015, contamination, contraction design and management regulations, contractor competence, control of substances hazardous to health, coshh, covered walkways, demolition, demolition health and safety, demolition safety, demolition work, dismantling, electricity, exclusion zones, falling debris, falling materials, falls from height, fire, fire plan, fire plans, flying debris, fragile surfaces, gas, hand arm vibration syndrome, hard hat areas, havs, hazardous materials, health and safety, health and safety executive, health and safety news, health and safety news updates, high reach machines, hoardings, hot

work, hse, injury from falling materials, involvement of workers, live services, machine cabs, nearby buildings, nearby structures, noise, noise and vibration, passers by, pipes, pre construction phase, premature collapse of buildings, premature collapse of structures, previous use of building, previous use of structure, rcs, reinforced machine cabs, respirable crystalline silica, reversing, reversing vehicles, risks from connected services, safe demolition, safe demolition work, slewing, slewing vehicles, structural alteration, structural stability, telecommunications, traffic management, turning, turning vehicles, type of construction, uncontrolled collapse, uncontrolled collapse of buildings, uncontrolled collapse of structures, unsafe demolition work, using high reach machines, vehicles, vibrating hand tools, vibration, vision aids, water, weight of machinery on floors above ground level, weight of removed material on floors above ground level, worker involvement, zero tail swing, zero tail swing machines, zero tail swing vehicles  Leave a comment

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## Cancer and construction: Diesel engine exhaust emissions

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The subject of air pollution has been very much in the headlines recently, particularly in London, where it was described in January as being worse than that in Beijing. And the London Atmospheric Emissions Inventory (LAEI) shows that the construction industry's contribution to this is disproportionate compared to that of the usual road transport related suspects, with site-based plant and machinery being mostly to blame. This is due to the fact that emissions from these "non-road mobile machines" or NRMMS, are regulated under a different and (until now) more relaxed system to road transport. Even whilst complying with recent regulatory standards, emissions from a modern excavator, for example, are still apparently 15 times greater than those from a modern double decker bus. And whilst attempts are being made by London mayor Sadiq Khan to address these issues and their effects on the health of Londoners, the health of construction workers themselves is also thrown into doubt by the absence of legal diesel fume exposure limits.

According to the HSE, as of 2005, cancers relating to exposure to diesel exhaust emissions accounted for 6.5% of construction-related cancer deaths – that's an estimated 230 construction workers each year. At the very least, short-term exposure to diesel engine exhaust emissions or DEEEs, can cause eye or respiratory irritation. And longer periods of exposure, in particular to any blue or black smoke, can lead to coughing, chestiness and breathlessness.

The law requires that a suitable and sufficient assessment of the risks to health which arise from exposure to hazardous substances is made, eg DEEEs. This is covered by the Health and Safety at Work etc Act 1974 and several other regulations, in particular the Control of Substances Hazardous to Health Regulations 2002 (as amended) (COSHH) and the Management of Health and Safety at Work Regulations 1999. Having completed the assessment, there is a further duty to take the necessary steps to prevent or adequately control exposure to the hazard, and to use and maintain the relevant controls.

The HSE provides the following guidance on managing the risks to construction workers from DEEEs.

### **Cancer and construction: Diesel engine exhaust emissions**

#### What is it?

Exhaust emissions from diesel engines are made up of a complex mixture of gases, vapours, liquid aerosols and soot particles. It contains many known carcinogenic substances such as Polycyclic Aromatic Hydrocarbons (known as PAHs). These PAHs are adsorbed onto the soot which makes them easy to inhale.

The quantity and make-up of DEEEs depends mainly on the engine type and setting, how it is maintained, fuel quality, the demands placed on the engine and temperature that it is working at. Three different types of visible smoke may be produced:

- blue smoke (mainly oil and unburnt fuel) which indicates a poorly serviced / tuned engine
- black smoke (soot, oil and unburnt fuel) which indicates a mechanical fault with the engine
- white smoke (water droplets and unburnt fuel) which is produced when the engine is started from cold and disappears when the engine warms up

#### What is the risk to construction workers?

The major source of DEEEs on a construction site is likely to be from generators and heavy vehicles like lorries, excavators or telehandlers. The more significant risks are linked to longer periods of work with this equipment in enclosed spaces and / or situations where there is blue or black smoke.

Breathing DEEEs can cause a number of ill-health effects. Short-term exposure may cause eye or

respiratory irritation. This should stop when you are in fresh air. Longer periods of exposure, in particular to any blue or black smoke, can lead to coughing, chestiness and breathlessness.

There is also evidence that repeated exposure to DEEEs over many years can increase the risk of lung cancer. HSE commissioned research highlighted it as a significant risk to construction workers from DEEEs, estimating that over 200 died prematurely in 2005. It is important to note that this estimate is based on past exposures up to 50 years ago. Engine and fuel technology has changed significantly since then. However, risks remain that you need to control.

### Can you prevent this risk?

Yes. There are a number of steps you can take: <http://www.hse.gov.uk/pubns/books/hsg187.htm> (click on the link to download a free copy of HSE publication “Control of diesel engine exhaust emissions in the workplace”)

For more information, visit the HSE web page <http://www.hse.gov.uk/construction/health-risks/cancer-and-construction/diesel-engine-exhaust.htm> or contact us on [07896 016380](tel:07896016380) or at [fiona@eljay.co.uk](mailto:fiona@eljay.co.uk), and we'll be happy to help.

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📅 2nd March 2017 🔍 air pollution, black smoke, blue smoke, breathlessness, cancer, carcinogenic, carcinogenic substances, chestiness, construction, construction industry, construction machinery, construction plant, construction related cancer, construction related cancer deaths, construction site machinery, construction site plant, construction workers, coshh, coughing, deee, deees, diesel, diesel engine exhaust emissions, diesel engines, diesel exhaust emissions, diesel fume exposure limits, diesel fumes, excavators, exhaust, exhaust emissions, exposure limits, exposure to hazardous substances, eye irritation, health and safety, health and safety executive, health and safety news, health and safety news updates, hse, inhalation, laei, London, London atmospheric emissions inventory, long term exposure, lorries, lung cancer, non road mobile machines, NRMM, nrmmms, pahs, pollution, polycyclic aromatic hydrocarbons, respiratory irritation, sadiq khan, short term exposure, site based plant and machinery, site machinery, site plant, site plant and machinery, soot, telehandlers, white smoke

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# **Metalworking fluids – ejector seat manufacturer fined £800,000 for failing to protect workers' health**

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## **Ejector seat manufacturer fined £800,000 for failing to protect workers' health**

A manufacturer of ejector seats has been fined £800,000 after three workers developed debilitating lung conditions.

Three skilled CNC machine operators developed extrinsic allergic alveolitis after many years of exposure to the mist of working metal fluid. The lung condition, also known as hypersensitivity pneumonitis, is a body's allergic reaction to breathing in a substance and symptoms include coughing, shortness of breath and joint pain.

Aylesbury Crown Court heard how the workers, who had served with the company for more than 20 years, were exposed to the working metal fluid mist over at least a three-year period. One worker has been so severely affected they have become virtually paralysed by the illness, another will never be able to work with metal working fluids again, a key material in the industry and a third must have special measures in place to ensure he never comes into contact with the substance.

An investigation by the Health and Safety Executive (HSE) found that the measures in place within the factory to stop the exposure to workers were inadequate. The fluid is commonly used as a lubricant and coolant in engineering processes. During the process of using the machines the fluid creates a mist, which in this case was breathed in by around 60 workers.

The manufacturer failed to put in place a system of cleaning away the excess fluid or providing extraction to prevent the build-up of the mist. There were also failings in the provision of health surveillance, which should have identified the issue early enough to ensure the company were able to put in place and monitor any appropriate safety measures.

The manufacturer pleaded guilty to breaching Section 2 (1) of the Health and Safety at Work etc. Act (1974) and Regulation 6(1) of the Control of Substances Hazardous to Health Regulations 2002 (as amended) (COSHH) and were fined £ 800 000 and ordered to pay costs of £36 912.36

The HSE said “Companies need to make sure they consider workers’ health just as much as their safety when carrying out risk assessments. The dangers of breathing in metal working fluid are well known within the industry. In this case one worker has had his health permanently and severely damaged, two others have also been affected, all will have to live with their condition for the rest of their lives.”

### **About metalworking fluids**

Metalworking Fluids (MWFs) are neat oils or water-based fluids used during the machining and shaping of metals to provide lubrication and cooling. They are sometimes referred to as suds, coolants, slurry or soap.

#### The main health risks from working with metalworking fluids

Exposure to metalworking fluids can cause:

- irritation of the skin or dermatitis; and
- occupational asthma, bronchitis, irritation of the upper respiratory tract, breathing difficulties or, rarely, a more serious lung disease called extrinsic allergic alveolitis (EAA), which can cause increasingly severe breathing difficulties in recurrent episodes, following repeated exposure.

Fluid and mist from water-mix wash fluids and washing machines used to clean machined components may be hazardous in much the same way as fluid and mist from metalworking machines, and the same principles of risk assessment, prevention and control should be applied.

#### How harm is caused

Metalworking fluids are mostly applied by continuous jet, spray or hand dispenser and can affect your health:

- if you inhale the mist generated during machining/shaping operations;
- through direct contact with unprotected skin, particularly hands, forearms and heads;
- through cuts and abrasions or other broken skin; and
- through the mouth if you eat, drink or smoke in work areas, or from poor personal hy-

giene, eg not washing hands before eating.

### Key messages for managing the health risks

Control of Substances Hazardous to Health Regulations (COSHH) requires exposure to metalworking fluids by inhalation, ingestion or skin contact to be prevented where reasonably practicable, or failing that, adequately controlled.

- HSE COSHH website: <http://www.hse.gov.uk/coshh/index.htm>
- e – COSHH essentials metalworking fluids guidance sheets: <http://www.hse.gov.uk/metalworking/ecoshh.htm>

You should:

- carry out a suitable and sufficient risk assessment – HSE’s self-assessment questionnaire (<http://www.hse.gov.uk/metalworking/questionnaire.pdf>) will help you do this;
- maintain fluid quality and control bacterial contamination of fluids;
- minimise skin exposure to fluids;
- prevent or control airborne mists; and
- where there is exposure to fluid or mist, carry out health surveillance.

To achieve the necessary control and risk reduction, among other actions, you will need to:

- check and maintain exposure control measures, such as enclosures and local exhaust ventilation;
- check levels of bacterial contamination using dip slides, or other means of measuring the level of bacterial activity, in both metalworking and associated fluids eg in washing machines, and act on the readings obtained in line with your risk assessment;
- ensure that, as a minimum, a responsible person carries out the required health surveillance
- conduct asthma health checks
- refer anyone affected by exposure to a competent occupational health professional;
- take prompt action after any diagnosis of ill health to identify the likely cause and ensure it is prevented or adequately controlled; and
- keep workers informed of all findings.

For more information, visit the HSE web page: <http://www.hse.gov.uk/metalworking/index.htm> or

contact us on [07896 016380](tel:07896016380) and we'll be happy to help.

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📅 1st December 2016 🔍 airborne mists, asthma health checks, bacterial activity, bacterial contamination of fluids, breathing difficulties, bronchitis, build up of mist, cleaning away, cleaning away excess fluid, cnc machine operating, cnc machine operation, cnc machine operators, continuous jet, control of substances hazardous to health, controls of substances hazardous to health regulations, coolant, coolants, cooling, coshh, coshh regulations, coughing, dermatitis, dip slides, eaa, enclosures, engineering, excess fluid, exposure, extraction, extrinsic allergic alveolitis, fluid, fluid quality, fluids, hand dispenser, health and safety, health and safety executive, health and safety news, health and safety news updates, health surveillance, hse, hypersensitivity pneumonitis, ingestion, inhalation, irritation, joint pain, local exhaust ventilation, lubricant, lubrication, lung conditions, lung disease, lung diseases, machined components, machining, machining operations, metal, metal work, metal work fluids, metal working, metal working fluids, metals, metalwork, metalwork fluids, metalworking, metalworking fluids, mist, mwfs, neat oil, neat oils, news, news updates, occupational asthma, occupational health, shaping, shaping operations, shortness of breath, skin contact, skin exposure to fluids, skin irritation, slurry, soap, spray, suds, updates, upper respiratory tract, washing machines, water based fluid, water based fluids, water mix wash fluids, working metal fluid, working metal fluid mist 💬 Leave a comment

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## HEALTH & SAFETY NEWS UPDATE – 4TH AUGUST 2016

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### **[How to carry out a COSHH risk assessment – worker dies from toxic gas](#)**

A medicinal herbal manufacturing company has been fined £45,000 after a worker died from exposure to a toxic gas.

The 50 year old employee was using cleaning chemicals to clean a changing room when he was exposed to a toxic gas (likely to be chlorine) and died at the scene.

An investigation by the Health and Safety Executive (HSE) into the incident which occurred in September 2014 found that he had not been trained in the safe use of chemicals and no company Control of Substances Hazardous to Health (COSHH) assessment had been carried out.

HM Inspector Stephen Farthing said: “This was a tragic industrial incident that was entirely preventable had suitable precautions been taken. [The employee] had not received any training in the safe use of hazardous chemicals and as a result died from the exposure to a toxic gas.

“Companies should ensure that they assess all the risks associated with the use of dangerous chemical and that exposure to their employees is either eliminated or minimised.”

### **How to carry out a COSHH risk assessment**

A COSHH assessment concentrates on the hazards and risks from hazardous substances in your workplace.

Remember that health hazards are not limited to substances labelled as ‘hazardous’. Some harmful substances can be produced by the process you use, eg wood dust from sanding, or silica dust from tile cutting.

#### Identify the hazards

- Identify which substances are harmful by reading the product labels and safety data sheets (SDS)
- If you are in doubt, contact your supplier
- Remember to think about harmful substances produced by your processes, such as cutting or grinding, or to which workers may be otherwise exposed

#### Decide who might be harmed and how

- How might workers be exposed? Think about the route into the body (whether the substance can be breathed in, get onto or through the skin or can even be swallowed) and the effects of exposure by each of these routes

- Think of how often people work with the substance and for how long
- Think about anyone else who could be exposed
- Don't forget maintenance workers, contractors and other visitors or members of the public who could be exposed
- Also think about people who could be exposed accidentally, eg while cleaning, or what happens if controls fail

### Evaluate the risks and decide on precautions

Once you have carried out a risk assessment and identified which harmful substances are present, and how workers can be harmed, you need to think about preventing exposure.

- Do you really need to use a particular substance, or is a safer alternative available?
- Can you change the process to eliminate its use or avoid producing it? If this is not possible, you must put in place adequate control measures to reduce exposure

The measures you adopt could include the following:

#### *Changing the process to reduce risks*

- Consider whether you can change the process you use to reduce the risk of exposure. For example, you could reduce the temperature of a process to reduce the amount of vapour getting into the air or use pellets instead of powders as they are less dusty

#### *Containment*

- Enclose the process or activity as much as possible to minimise the escape or release of the harmful substance
- Use closed transfer and handling systems and minimise handling of materials
- Extract emissions of the substance near the source

#### *Systems of work*

- Restrict access to those people who need to be there
- Plan the storage of materials, and use appropriate containers. Check that storage containers are correctly labelled and that incompatible materials, for example acids and caustics, are separated

- Plan the storage and disposal of waste

### *Cleaning*

- Exposure to hazardous substances can occur during cleaning, so plan and organise the workplace so that it can be easily and effectively cleaned
- Smooth work surfaces will allow easy cleaning
- Have the right equipment and procedures to clear up spillages quickly and safely
- Clean regularly using a ‘dust-free’ method – vacuum, don’t sweep

If you have five or more employees, you must record your assessment but, even if you have fewer than five, it makes sense to write down what steps you have taken to identify the risks. And the really important part is making a list of the actions you have taken to control the risks to workers’ health.


The risk assessment should be regularly reviewed to ensure that it is kept up to date to take into account any changes in your workplace.

For more information, visit the HSE web page: <http://www.hse.gov.uk/toolbox/harmful/coshh.htm> or contact us on [07896 016380](tel:07896016380) or at [fiona@eljay.co.uk](mailto:fiona@eljay.co.uk), and we’ll be happy to help.

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📅 4th August 2016 🔒 access restriction, accidental exposure, accidentally exposed, acid, acids, adequate control measures, appropriate containers, breathe in, breathing in, caustic, caustics, changing processes, chemicals, chlorine, cleaning, cleaning chemicals, cleaning fluids, cleaning substances, closed handling systems, closed transfer, containers, containment, contractors, control measures, control of substances hazardous to health, controls, correct labelling, coshh, coshh assessment, coshh assessments, coshh risk assessment, coshh risk assessments, cutting, dangerous, dangerous chemicals, disposal of waste, dust free, emission extraction, escape of harmful substances, escape of toxic gases, exposure, extract emissions, grinding, handling of materials, harmful, harmful substances, hazardous, hazardous chemicals, hazardous substances, health and safety, health and safety executive, health and safety news, health and safety news updates, hse, incompatible materials, labelling,

maintenance workers, materials storage, members of the public, pellets, powders, precautions, preventing exposure, process, processes, product labels, reduce exposure, restrict access, safe use of, safe use of chemicals, safer alternative, safer alternatives, safety data sheets, sanding, sds, silica dust, spillages, storage containers, storage of materials, storage of waste, substance emissions, substances, swallow, swallowing, systems of work, tile cutting, toxic, toxic gas, toxic gases, toxic substances, using, using chemicals safely, vapour, visitors, waste disposal, waste storage, wood dust, workplace  Leave a comment

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## **HEALTH & SAFETY NEWS UPDATE – 3RD MARCH 2016**

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IN THIS UPDATE

### **Introduction**

**Fairgrounds and amusement parks – HSE to prosecute Alton Towers’ owners after ‘Smiler’ incident**

**Temporary demountable structures – firm fined after circus tent collapse**

**Control of Substances Hazardous to Health (COSHH) – insulation company fined for health and safety failings**

### **Introduction**

The Health and Safety Executive has again been in the news over the last week, after informing Merlin Operations Ltd that it will be prosecuted over an incident in which five people were seriously injured on a rollercoaster ride at Alton Towers in Staffordshire. Two female passengers on the ‘Smiler’ ride suffered leg amputations and three others were also seriously injured when their carriage collided with a stationary carriage on the same track. The incident happened on 2 June 2015. We open this week’s update with HSE guidance on safe practice for fairgrounds and amusement parks.

Staying with the leisure industry, we also share HSE guidance this week on ‘temporary demountable structures’, following news of a marquee and tent supplier being fined after guy ropes securing a circus tent snapped causing it to collapse injuring three adults and five children at Burley



Park, New Forest.

And finally, we close with HSE guidance on the Control of Substances Hazardous to Health (COSHH), following news of a Welsh insulation company that produced natural insulation products being fined £30,000 plus £59,000 costs for health and safety failings.

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### **Fairgrounds and amusement parks – HSE to prosecute Alton Towers' owners after 'Smiler' incident**

#### **HSE media statement – 25<sup>th</sup> February 2016**

The Health and Safety Executive (HSE) has today informed Merlin Attractions Operations Ltd that it will be prosecuted over an incident in which five people were seriously injured on a roller-coaster ride at Alton Towers in Staffordshire.

Two female passengers on the 'Smiler' ride suffered leg amputations and three others were also seriously injured when their carriage collided with a stationary carriage on the same track. The incident happened on 2 June 2015.

Merlin Attractions Operation Ltd based in Poole, Dorset, will appear at North Staffordshire Justice Centre, Newcastle-under-Lyme on 22 April 2016 to face a charge under the Health and Safety at Work Act etc, 1974.

Neil Craig, head of operations for HSE in the Midlands said:

“We have today informed Merlin Attractions Operations Ltd that it will be prosecuted for breaching health and safety law.

“This was a serious incident with life-changing consequences for five people.

“We have conducted a very thorough investigation and consider that there is sufficient evidence and that it is in the public interest to bring a prosecution.”

Merlin Attractions Operations Ltd is the company responsible for Alton Towers and under health

and safety law is responsible for managing the risks created by the operation of the theme park's rides.

### **Guidance on safe practice**

Free to download by clicking on the following link: <http://www.hse.gov.uk/pubns/books/hs-g175.htm> – revised guidance on what the Fairgrounds and Amusement Parks Joint Advisory Committee on Fairgrounds and Amusement Parks (FJAC) considers appropriate safe measures for the industry to adopt in order to comply with the law.

Although fairgrounds and amusement parks are relatively safe compared to activities such as driving a car or riding a bicycle, as we are all too aware, there have been a small number of serious incidents involving employees and members of the public. The Health and Safety Executive has worked with the members of the Fairgrounds and Amusement Parks Joint Advisory Committee to improve standards and to produce this revised guide.

Acknowledging the inherent nature of fairgrounds and describing how risks can be managed effectively, it also promotes a sensible, over-arching approach recognising that while users expect high safety levels from risks beyond their control, incidental elements, eg a dodgem bump, are considered 'part of the fun'.

The guide, however, concentrates on the safety of employers and employees, as well as the public, and begins with the industry-specific 'system for safety of attractions' presented in easy table-form, which then steers the reader smoothly through the publication.

For more information, contact us on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk), and we'll be happy to help.

### **Temporary demountable structures – firm fined after circus tent collapse**

The owner of a company who supplies marquees and tents has been fined after guy ropes securing a circus tent snapped causing it to collapse injuring three adults and five children at Burley Park, New Forest.

Southampton Magistrates' Court heard that on 10 August 2014 a sudden gust of wind went through the circus tent and eighteen of the guy ropes which secured the tent failed and snapped.

An investigation by the Health and Safety Executive (HSE) into the incident found that Happy Promotions Limited had in December 2013 taken their tent for inspection and repair to the marquee and tent supplier, who was asked to replace the guy ropes.

However, the court heard the guy ropes supplied were in fact made up of unrated webbing and had no safe working load. This led to the incident at Burley Park 8 months later.

HSE inspector Andrew Johnson said after the hearing: “The fact the guy ropes snapped (rather than the pegs being pulled from the ground) is a clear indication that the fault lies with the strength of the guy ropes, rather than the method of erection. Fortunately, the tent was empty at the time of the incident. Had a performance been underway there would have been performers and around 30 people were due to attend the afternoon performance. Were the tent occupied the collapse would likely have resulted in multiple serious injuries.”

## **Temporary demountable structures (TDS) – Stages, seating, marquees etc**

### Your duties as an event organiser

You are responsible for ensuring that as far as reasonably practicable, employees and others at a venue who could be affected by the construction and use of a TDS (such as scaffolders, riggers and members of the public) are not exposed to risks to their health and are kept safe from harm.

### What you should know

Most fatal and serious injuries arise when workers fall during construction work or as a result of the collapse of the structure, lifting operations or mobile plant.

### Checklist – TDS dos and don'ts

Do

Planning

- Consider what the structure will be used for, what it needs to be able to do, who will use it and how?
- Prepare a clear specification for the structure's required use. This should include the technical details required to enable a design to be undertaken by your appointed TDS contractor(s) / designer (s).
- TDS contractors / designers hired to design, supply, build, manage and take down a structure for you, should be competent and adequately resourced.
- Provide TDS contractors / designers with relevant site information and/or allow them site access to carry out their own site assessments.
- Your TDS contractor should ensure that the proposed structure has a design prepared by

a competent person, which takes account of the use and conditions in which it is to be installed.

- Where a structure is to carry advertising / scrim, include this requirement in any design concept, specification and structural assessment.
- Novel or unusual structures may require additional testing by a TDS designer to demonstrate the integrity of the design.
- Whoever builds the structure should undertake an assessment of the likely construction hazards and risks. To help with an assessment and to find out more about construction hazards and risks see:
  - Falls from height
  - Construction safety topics (including lifting operations and vehicle safety)
  - Health risks in construction
- Plan and work with your contractors to develop safe systems of working and make sure all significant risks on the site are properly controlled, eg use of cranes and lift trucks.
- Plan to minimise confusion and conflict, particularly between those contractors carrying out concurrent or consecutive activities on the same structure.
- Consider the extent of control that you and your contractors have over the work activity and workplace during each phase of the build, use and deconstruction cycle of a structure. Organisers and TDS contractors should agree the extent of their control at the planning stage, so that responsibility for structural safety is understood and maintained throughout the event.

#### Building and dismantling the TDS

- The assessments done under Planning (above) should serve as a guide on how to build and dismantle the structure safely.
- Make sure there is sufficient time and resources available to build and dismantle the structure safely.
- Use competent staff and have a suitable onsite operational management system in place to supervise and monitor safety compliance.
- A programme of works, including key safety checkpoints, can be helpful to communicate critical erection / dismantling stages to the site manager / crew bosses and operatives.
- Build the structure to the agreed design in accordance with a safe system of work.
- Arrange for the structure to be checked to make sure that it has been built according to the design.

While TDS is in use

- Have arrangements in place to inspect the structure for deterioration during the time it is installed in line with a documented management plan and, if needed, arrange for remedial works.
- Any change in the proposed use of the structure or site conditions which may affect the structure's suitability should trigger a design check for the new conditions. An example of this may be the requirement to add additional banners to a structure such as a PA tower. The organiser is responsible for ensuring this is done.
- Have arrangements in place to ensure that any measures required to keep the structure safe during use are implemented. For example, if the structure is susceptible to the weather, monitor and measure the local weather conditions. In adverse weather conditions, know what to do with the structure to protect its stability, eg when to open wind relief panels and when to evacuate.

Don't

- Take forward incomplete design concepts, as this could result in last-minute modifications, leading to safety problems.
- Build a structure on unstable ground.
- Put advertising / scrim on a structure if a competent person has not approved it as being safe – it can affect wind loading and increase the risk of collapse / overturn.
- Use flammable fabrics.

For more information, visit the HSE web page <http://www.hse.gov.uk/event-safety/temporary-dismountable-structures.htm>, or contact us on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk), and we'll be happy to help.

### **Control of Substances Hazardous to Health (COSHH) – insulation company fined for health and safety failings**

A Welsh insulation company that produced natural insulation products have been fined £30,000 plus £59,000 costs for health and safety failings.

Wrexham Magistrates' Court heard that the company failed to conduct an adequate risk assessment for the processing of hemp. They also failed to adequately guard machinery.

An investigation by the Health and Safety Executive (HSE) into the concerns raised anonymously

found that the COSHH assessment was not suitable and sufficient.

## **Control of Substances Hazardous to Health (COSHH)**

### What is a 'substance hazardous to health'?

COSHH covers substances that are hazardous to health. Substances can take many forms and include:

- chemicals
- products containing chemicals
- fumes
- dusts
- vapours
- mists
- nanotechnology
- gases and asphyxiating gases and
- biological agents (germs). If the packaging has any of the hazard symbols then it is classed as a hazardous substance.
- germs that cause diseases such as leptospirosis or legionnaires disease and germs used in laboratories.

COSHH does not cover

- lead,
- asbestos or
- radioactive substances

because these have their own specific regulations.

### What you need to do

Before you start your COSHH assessment, you need to:

Think about

- What do you do that involves hazardous substances?
- How can these cause harm?

- How can you reduce the risk of harm occurring?

Always try to prevent exposure at source. For example:

- Can you avoid using a hazardous substance or use a safer process – preventing exposure, eg using water-based rather than solvent-based products, applying by brush rather than spraying?
- Can you substitute it for something safer – eg swap an irritant cleaning product for something milder, or using a vacuum cleaner rather than a brush?
- Can you use a safer form, eg can you use a solid rather than liquid to avoid splashes or a waxy solid instead of a dry powder to avoid dust?

Check your trade press and talk to employees. At trade meetings, ask others in your industry for ideas.

If you can't prevent exposure, you need to control it adequately by applying the principles of good control practice (<http://www.hse.gov.uk/coshh/detail/goodpractice.htm>)

Control is adequate when the risk of harm is 'as low as is reasonably practicable'.

This means:

- All control measures are in good working order.
- Exposures are below the Workplace Exposure Limit, where one exists.
- Exposure to substances that cause cancer, asthma or genetic damage is reduced to as low a level as possible.

### COSHH Essentials

COSHH Essentials sets out basic advice on what to do to control exposure to hazardous substances in the workplace. It takes the form of straightforward advice in 'factsheets' called 'control guidance sheets'. There are two types of sheets, industry-specific 'direct advice sheets' and 'generic control guidance sheets'.

Direct advice sheets (click on the link: <http://www.hse.gov.uk/coshh/essentials/direct-advice/index.htm>)

First check the direct advice sheets listed by industry to see if there are any direct advice sheets for

tasks or processes in your industry. If your industry is not listed don't worry, you can use our e-tool to identify which generic control guidance sheets are appropriate.

COSHH e-tool (click on the link: <http://www.hse.gov.uk/coshh/essentials/coshh-tool.htm>)

When using the tool you will be prompted by questions to enter some basic information about the substance you are using, before being directed to the most appropriate generic control guidance sheet for you.

Frequently asked questions (click on the link: <http://www.hse.gov.uk/coshh/essentials/faq.htm>)

- Why does COSHH essentials not list all of the R phrases/H statements that are on my Safety Data Sheet (SDS)
- I can't find my safety data sheet. What should I do?
- I have just completed COSHH essentials, is this sufficient to use as my COSHH assessment?
- Some of the information I need is missing from my safety data sheet. What should I do?
- There isn't a boiling point in the safety data sheet?
- Why can't I mix a liquid with a solid?

For more information, visit the HSE web page <http://www.hse.gov.uk/coshh/>, or contact us on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk)

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📅 3rd March 2016 🔖 additional banners, adverse weather conditions, advertising, alton towers, amusement parks, apply by brush, applying by brush, as low as is reasonably practicable, asbestos, asphyxiating gases, asthma, avoid dust, avoid splashes, biological agents, boiling points, brush, building and dismantling tds, building tds, cancer, carriages, chemicals, circus tents, collapse of structure, collisions, construction and use of a tds, construction of a tds, control exposure, control guidance sheets, control of substances hazardous to health, coshh, coshh assessments, coshh e tool, coshh essentials, coshh etool, crew bosses, crew operatives, critical dismantling



stages, critical erection stages, direct advice sheets, dismantling stages, dismantling tds, dodgem bumps, dodgems, dry powder, dusts, erection stages, event organisers, factsheets, failure of guy ropes, fairgrounds, fairgrounds and amusement parks, fairgrounds and amusement parks joint advisory committee, fairgrounds and amusement parks joint advisory committee on fairgrounds and amusement parks, fjac, fumes, gases, generic control guidance sheets, genetic damage, germs, germs that cause diseases, germs used in laboratories, guy ropes, hazard symbols, health and safety, health and safety at work act, health and safety at work act etc 1974, health and safety executive, health and safety law, health and safety news, health and safety news updates, hemp, hemp processing, hse, incidental elements, industry specific, insulation, irritant cleaning products, key safety checkpoints, lead, legionnaires, leisure industry, leptospirosis, life changing consequences, lifting operations, marquees, members of the public, method of erection, mists, mixing liquids with solids, mixing solids with liquids, mobile plant, nanotechnology, natural insulation, natural insulation products, pa tower, part of the fun, pegs, performance, prevent exposure, prevent exposure at source, principles of good practice, processing of hemp, products containing chemicals, programme of works, radioactive substances, rated webbing, riggers, rollercoaster ride, rollercoaster rides, rollercoasters, safe systems of work, safe working loads, safety data sheets, safety of employees, safety of employers, safety of employers and employees, safety of the public, scaffolders, scrim, sds, seating, serious incident, site managers, smiler, smiler incident, solid rather than liquid, solvent based, spraying, stability, Staffordshire, stages, stationary carriages, strength of guy ropes, substances hazardous to health, system for safety of attractions, tds, tds contractors, tds designers, tds dos and donts, temporary demountable structures, tent collapse, tents, theme park rides, theme parks, tracks, trade meetings, trade press, unrated webbing, use of a tds, vacuum cleaner, vapours, venues, water based, waxy solid, webbing, wind loading, wind relief panels, workplace exposure limit

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## HEALTH & SAFETY NEWS UPDATE – 10TH DECEMBER 2015

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### [Introduction](#)

This is our last news update of the year and we would like to take this opportunity to wish all of our readers Merry Christmas and a Happy New Year.

As we head into winter, the cold temperatures predicted have thankfully so far eluded us, but heavy rain and strong winds are, worryingly, becoming commonplace. Only last weekend, outside a North Staffordshire convenience store, a 40 metre stretch of scaffolding blew down, landing on six parked cars. Amazingly and luckily, nobody was hurt. And this week, a scaffolding company was fined after scaffolding they were dismantling blew over and hit a bus and pedestrians. Investigation by the HSE found that the scaffolding was not tied to the building, and sheeting was left in place. We open this week's update with HSE guidance intended to clarify when a scaffold design is required and what level of training and competence those erecting, dismantling, altering, inspecting and supervising scaffolding operations are expected to have.

Staying with construction, we also share HSE guidance on controlling the risks of serious skin problems such as dermatitis and burns which can arise from using cement based products, like concrete or mortar. This is after a construction firm was fined £14,000 plus £1590 costs when a 54-year-old employee suffered severe cement burns to his knees while laying concrete flooring.

Finally, with the increasing popularity of charcoal and wood-fired ovens, the uptake of solid fuel appliances in restaurant kitchens has been rapid. But the Health Protection Agency has warned that wood burning stoves "can cause lethal carbon monoxide poisoning". So the HSE have published a new catering information sheet which we share this week, aimed specifically at employers who use solid fuel appliances such as tandoori ovens, charcoal grills and wood-fired pizza ovens in commercial kitchens.

We hope you find our news updates useful. If you know of anyone who may benefit from reading them, please encourage them to register at the bottom-left of our news page (<http://www.eljay.co.uk/news/>) and we'll email them a link each time an update is published. If in the unlikely event any difficulties are experienced whilst registering we'll be more than happy to help and can be contacted on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk)

### **Scaffold checklist – company fined after scaffolding blown over during dismantling**

A scaffolding company has been fined a total of £8,000 plus £2,000 costs after scaffolding hit a bus and pedestrians when it blew over during dismantling.

Leicester Magistrates' Court heard how in January 2015 the company was dismantling scaffolding on a city centre street when the incident occurred. The scaffolding hit a bus, landed on a parked van and hit two members of the public.

An investigation by the Health and Safety Executive (HSE) into the incident, found that the company was not following a safe system of work. The scaffolding was not tied to the building and sheeting was left in place. The scaffolding dismantling took place over four days and the workers failed to check the scaffolding condition before they started or to take adequate measures to correct defects and ensure it would not collapse during the dismantling.

Speaking after the hearing HSE inspector Martin Giles said: “Scaffolding needs to be tied to a building and dismantling needs to be properly planned and carried out in a safe manner.”

### **Scaffold checklist**

This guide is intended to clarify when a scaffold design is required and what level of training and competence those erecting, dismantling, altering, inspecting and supervising scaffolding operations are expected to have.

#### Scaffold design

It is a requirement of the Work at Height Regulations 2005 that unless a scaffold is assembled to a generally recognised standard configuration, eg NASC Technical Guidance TG20 for tube and fitting scaffolds or similar guidance from manufacturers of system scaffolds, the scaffold should be designed by bespoke calculation, by a competent person, to ensure it will have adequate strength, rigidity and stability while it is erected, used and dismantled.

At the start of the planning process, the user should supply relevant information to the scaffold contractor to ensure an accurate and proper design process is followed. Typically this information should include:

- site location
- period of time the scaffold is required to be in place
- intended use
- height and length and any critical dimensions which may affect the scaffold
- number of boarded lifts
- maximum working loads to be imposed and maximum number of people using the scaffold at any one time
- type of access onto the scaffold eg staircase, ladder bay, external ladders
- whether there is a requirement for sheeting, netting or brickguards
- any specific requirements or provisions eg pedestrian walkway, restriction on tie locations, inclusion/provision for mechanical handling plant eg hoist)
- nature of the ground conditions or supporting structure

- information on the structure/building the scaffold will be erected against together with any relevant dimensions and drawings
- any restrictions that may affect the erection, alteration or dismantling process

Prior to installation, the scaffold contractor or scaffold designer can then provide relevant information about the scaffold. This should include:

- type of scaffold required (tube & fitting or system)
- maximum bay lengths
- maximum lift heights
- platform boarding arrangement (ie 5 + 2) and the number of boarded lifts that can be used at any one time
- safe working load / load class
- maximum leg loads
- maximum tie spacing both horizontal and vertical and tie duty
- details of additional elements such as beamed bridges, fans, loading bays etc, which may be a standard configuration (see note 1 ref TG20:13) or specifically designed
- information can be included in relevant drawings if appropriate
- any other information relevant to the design, installation or use of the scaffold
- reference number, date etc. to enable recording, referencing and checking

All scaffolding must be erected, dismantled and altered in a safe manner. This is achieved by following the guidance provided by the NASC in document SG4 'Preventing falls in scaffolding' for tube and fitting scaffolds or by following similar guidance provided by the manufacturers of system scaffolding.

For scaffolds that fall outside the scope of a generally recognised standard configuration the design must be such that safe erection and dismantling techniques can also be employed throughout the duration of the works. To ensure stability for more complex scaffolds, drawings should be produced and, where necessary, these may need to be supplemented with specific instructions.

Any proposed modification or alteration that takes a scaffold outside the scope of a generally recognised standard configuration should be designed by a competent person and proven by calculation.

#### Scaffold structures that normally require bespoke design

Includes:

- all shoring scaffolds (dead, raking, flying)
- cantilevered scaffolds
- truss-out Scaffolds
- façade retention
- access scaffolds with more than the 2 working lifts
- buttressed free-standing scaffolds
- temporary roofs and temporary buildings
- support scaffolds
- complex loading bays
- mobile and static towers
- free standing scaffolds
- temporary ramps and elevated roadways
- staircases and fire escapes (unless covered by manufacturers instructions)
- spectator terraces and seating stands
- bridge scaffolds
- towers requiring guys or ground anchors
- offshore scaffolds
- pedestrian footbridges or walkways
- slung and suspended scaffolds
- protection fans
- pavement gantries
- marine scaffolds
- boiler scaffolds
- power line crossings
- lifting gantries and towers
- steeple scaffolds
- radial / splayed scaffolds on contoured facades
- system scaffolds outside manufacturers guidance
- sign board supports
- sealing end structures (such as temporary screens)
- temporary storage on site
- masts, lighting towers and transmission towers
- advertising hoardings/banners
- rubbish chute
- any scaffold structure not mentioned above that falls outside the ‘compliant scaffold’ criteria in TG20 or similar guidance from manufacturers of system scaffolds.

The above list is not exhaustive and any scaffold that is not a standard configuration or does not comply with published manufacturers' guidelines will require a specific design produced by a competent person.

Note:

1. TG20:13 provides compliant scaffolds for a limited range of cantilever scaffolds, loading bays, static towers, use of rakers, bridges and protection fans.
2. TG20:13 provides a range of compliant scaffolds, which can be boarded at any number of lifts, but only two platforms can be used as working platforms at any one time.

### Competence and supervision of scaffolding operatives

All employees should be competent for the type of scaffolding work they are undertaking and should have received appropriate training relevant to the type and complexity of scaffolding they are working on.

Employers must provide appropriate levels of supervision taking into account the complexity of the work and the levels of training and competence of the scaffolders involved.

As a minimum requirement, every scaffold gang should contain a competent scaffolder who has received training for the type and complexity of the scaffold to be erected, altered or dismantled.

Trainee scaffolders should always work under the direct supervision of a trained and competent scaffolder. Operatives are classed as 'trainees' until they have completed the approved training and assessment required to be deemed competent.

Erection, alteration and dismantling of all scaffolding structures (basic or complex) should be done under the direct supervision of a competent person. For complex structures this would usually be an 'Advanced Scaffolder' or an individual who has received training in a specific type of system scaffold for the complexity of the configuration involved.

Scaffolding operatives should be up to date with the latest changes to safety guidance and good working practices within the scaffolding industry. Giving operatives job specific pre-start briefings and regular toolbox talks is a good way of keeping them informed.

Guidance on the relevant expertise of Scaffolders and Advanced scaffolders including details of which structures they are deemed competent to erect can be obtained from the Construction In-

dustry Scaffolders Record Scheme (CISRS) website (<http://cisrs.org.uk/>).

### Scaffold inspection

It is the scaffold users / hirers responsibility to ensure that all scaffolding has been inspected as follows:

- following installation / before first use
- at an interval of no more than every 7 days thereafter
- following any circumstances liable to jeopardise the safety of the installation eg high winds.

All scaffolding inspection should be carried out by a competent person whose combination of knowledge, training and experience is appropriate for the type and complexity of the scaffold.

Competence may have been assessed under the CISRS or an individual may have received training in inspecting a specific type of system scaffold from a manufacturer/supplier.

A non-scaffolder who has attended a scaffold inspection course (eg a site manager) could be deemed competent to inspect a basic scaffold structure.

The scaffold inspection report should note any defects or matters that could give rise to a risk to health and safety and any corrective actions taken, even when those actions are taken promptly, as this assists with the identification of any recurring problem.

### Further information

National Access and Scaffolding Confederation (<http://www.nasc.org.uk/>)

For clarification or more information, visit the HSE web page <http://www.hse.gov.uk/construction/safetytopics/scaffoldinginfo.htm> or contact us on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk) and we'll be happy to help.

### **Construction hazardous substances: Cement – construction firm fined after worker suffers cement burns**

A construction firm has been fined £14,000 plus £1590 costs after a 54-year-old employee suffered severe cement burns to his knees while laying concrete flooring.

Sefton Magistrates' Court heard that in November 2014, the employee kneeled in wet concrete to manually finish the concrete flooring being laid in a domestic bungalow. The cement burns to both his knees resulted in 12 days hospitalisation and ongoing treatment.

The Health and Safety Executive (HSE) investigation found the firm failed to adequately assess the risks and implement suitable and sufficient control measures to protect employees from contact of the wet concrete with the skin. In addition, it did not provide suitable Personal Protective Equipment (PPE) and there were no welfare facilities on site.

The court heard the company had been served with HSE Improvement Notices for lack of welfare facilities in September 2014 and June 2014.

HSE inspector Anne Foster said after the hearing: "The injuries the employee suffered were entirely foreseeable and avoidable had the company implemented suitable controls, such as the use of long-handled tools, or the provision of suitable chemical resistant PPE. It is also wholly unreasonable to expect workers to travel four miles to find welfare facilities."

### **What you must do**

The Control of Substances Hazardous to Health (COSHH) Regulations ([http://www.hse.gov-  
uk/coshh/index.htm](http://www.hse.gov.uk/coshh/index.htm)) says you must protect against the risks from cement-based products. Follow the Assess, Control and Review model. Pay particular attention to:

#### Assess

Identify and assess: Identify those tasks where cement based products will be used. Workers handling / mixing cement powder or using wet mortar and cement are particularly at risk. Check for any existing skin or allergy problems as this work could make these conditions worse. Follow the control steps below.

Cement powder is also a respiratory irritant. The dust produced while cutting, drilling etc dried concrete and mortar can cause more serious lung disease. More information on assessing and controlling this risk can be found in the section on construction dust (<http://www.hse.gov.uk/construction/healthrisks/hazardous-substances/construction-dust.htm>).

#### Control

Prevent: Where possible think about eliminating or reducing the amount of cement used and contact with it. Consider:



- avoiding exposure to cement powder by using pre-mixed concrete / mortar
- using work methods that increases the distance between the worker and the substance such as longer handled tools
- rotating cement bags to ensure they are used before the shelf date. The ingredient added to reduce the risk of allergic contact dermatitis is only effective for a limited period.

Control: Even if you stop some of the risk this way, you may still do other work that might involve contact with cement. Control the risk by:

- Gloves – gloves should be waterproof and suitable for use with high pH (alkaline) substances; eg marked with EN374:2003 and tested for use with “alkalis and bases” (class K) – some nitrile or PVC gloves may be suitable. Breakthrough time and permeation rate should also be suitable for the type and duration of the work. Gloves should be long and /or tight fitting at the end to prevent cement being trapped between the glove and the skin.
- More information on gloves: <http://www.hse.gov.uk/skin/employ/gloves.htm>
- Footwear – suitable footwear, such as wellington boots, should be used where large concrete pours are taking place. If standing in cement, these should be high enough to prevent cement entering the top of the boot.
- Waterproof trousers – when kneeling on wet products containing cement, appropriate waterproof trousers should be worn or, if screeding, use appropriate waterproof knee pads or knee boards. Minimise any time spent kneeling. Wear trousers over the top of boots. This stops cement getting into them.
- Washing – wash off any cement on the skin as soon as possible. Workers should be encouraged to wash exposed skin at breaks and after work. Good washing facilities are essential. There should be hot and cold or warm running water, soap and towels. Basins should be large enough to wash forearms. Showers may be needed in some situations where workers could get heavily covered in cement. Use emergency eyewash to remove any cement that gets into eyes.
- Skin care products – these can help to protect the skin. They replace the natural oils that help keep the skin’s protective barrier working properly.

Train: Workers need to know how to use the controls properly. They also need to be aware of the signs and symptoms of dermatitis. Finding skin problems early can stop them from getting too bad.

## Review

Supervise: Ensure that controls such as work methods, PPE and welfare are effective and used by the workers.

Monitor: Appropriate health surveillance is needed to check your controls are preventing dermatitis. This could be done by a 'responsible person' who can be an employee provided with suitable training. They should:

- assess the condition of a new worker's skin before, or as soon as possible after, they start work and then periodically check for early signs of skin disease after this
- keep secure health records of these checks
- tell the employer the outcome of these checks and any action needed

### **What you should know**

Skin problems are not just a nuisance, they can be very painful and sometimes debilitating. Cement and cement-based products can harm the skin in a number of ways.

Wet cement is highly alkaline in nature. A serious burn or ulcer can rapidly develop if it is trapped against the skin. In extreme cases, these burns may need a skin graft or cause a limb to be amputated. Cement can also cause chemical burns to the eyes.

Cement also causes dermatitis. It can abrade the skin and cause irritant contact dermatitis. Cement also contains hexavalent chromium (chromate). This can cause allergic contact dermatitis due to sensitisation. Manufacturers add an ingredient to lower the hexavalent chromium content and reduce this risk. This ingredient is only effective for a limited period as indicated by the shelf date. After this period, the level of hexavalent chromium may increase again. Once a person has become sensitised to this substance, any future exposure may trigger dermatitis. Some skilled tradesmen have been forced to change their trade because of this.

For more information on the effects of dermatitis see (click on the links):

- Dermatitis video: <http://www.hse.gov.uk/skin/videos/getderm/getderm.htm>
- Worker's story: <http://www.hse.gov.uk/skin/casestudies/tiler.htm>
- Dermatitis pictures: <http://www.hse.gov.uk/skin/imagelibrary.htm>
- Skin at work: <http://www.hse.gov.uk/skin/index.htm>

For more information visit the HSE web page <http://www.hse.gov.uk/construction/healthrisks/hazardous-substances/cement.htm> or contact us on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk) and we'll be happy to help.

## **Preventing exposure to carbon monoxide from use of solid fuel appliances in commercial kitchens**

This new catering information sheet is published in collaboration with the Heating Equipment Testing and Approval Scheme, the Solid Fuel Association and the Hospitality Industry Liaison Forum.

The guidance is aimed specifically at employers who use solid fuel appliances such as tandoori ovens, charcoal grills and wood-fired pizza ovens in commercial kitchens. It is concerned with the risks of exposure to carbon monoxide gas for workers as well as members of the public and outlines how they can be protected and what the law says.

The information sheet can be downloaded free by clicking on the link:


<http://www.hse.gov.uk/pubns/cais26.pdf>

For clarification or more information visit the HSE web page <http://www.hse.gov.uk/pubns/cais26.htm> or contact us on [07896 016380](tel:07896016380) or at [Fiona@eljay.co.uk](mailto:Fiona@eljay.co.uk) and we'll be happy to help.

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📅 10th December 2015 🔍 access scaffolds, advanced scaffolder, allergic contact dermatitis, altering, assess control and review, assess control and review model, beamed bridges, bespoke calculation, boarded lifts, boiler scaffolds, brickguards, bridge scaffolds, buttressed free standing scaffolds, cantilevered scaffolds, carbon monoxide, carbon monoxide gas, catering information sheet, cement, cement based products, cement burns, cement powder, charcoal grills, chemical resistant ppe, chromate, cisrs, class k, commercial kitchens, complex loading bays, complex scaffolds, compliant scaffold, concrete, construction hazardous substances, construction industry scaffolders record scheme, control of substances hazardous to health coshh regulations, coshh, coshh regulations, dead, dermatitis, dismantling scaffold, dismantling scaffolding, elevated roadways, emergency eyewash, erecting, external ladders, façade retention, flying, free standing scaffolds, gloves, ground anchors, handling cement powder, health and safety, health and safety executive, health and safety news, health and safety news updates, health surveillance, heating equipment testing and approval scheme, hexavalent chromium, high alkaline, high winds, hospitality industry liaison forum, hse, hse scaffold, hse scaffold checklist, inspecting, irritant

contact dermatitis, knee boards, ladder bay, laying concrete flooring, lifting gantries, lifting towers, load class, loading bays, long handled tools, longer handled tools, marine scaffolds, maximum bay lengths, maximum lift heights, maximum tie spacing, maximum working loads, mixing cement powder, mobile towers, nasc, nasc technical guidance, nasc technical guidance TG20, national access and scaffolding confederation, netting, nitrile gloves, offshore scaffolds, pavement gantries, pedestrian walkway, personal protective equipment, platform boarding arrangement, power line crossings, ppe, pre mixed concrete, pre mixed mortar, preventing exposure to carbon monoxide from use of solid fuel appliances in commercial kitchens, preventing falls from scaffolding, protection fans, pvc gloves, radial scaffolds, raking, respiratory irritant, rubbish chutes, safe system of work, safe systems of work, safe working load, scaffold, scaffold checklist, scaffold design, scaffold gang, scaffold inspection, scaffolder, scaffolders, scaffolding, scaffolding blown down, scaffolding blown over, scaffolding contractor, scaffolding operatives, screeding, sealing end structures, seating stands, sensitisation, serious lung disease, sg4, sheeting, shoring scaffolds, slung scaffolds, solid fuel appliances, solid fuel association, spectator terraces, splayed scaffolds, staircase, static towers, steeple scaffolds, supervising scaffolding operations, support scaffolds, suspended scaffolds, system scaffold, system scaffolding, system scaffolds, tandoori ovens, temporary buildings, temporary ramps, temporary roofs, tested for use with alkalis and bases, tie duty, tie locations, trainee scaffolders, truss out scaffolds, tube and fitting scaffold, tube and fitting scaffolding, tube and fitting scaffolds, tube and fitting system, using wet mortar, waterproof knee pads, waterproof trousers, welfare facilities, wellington boots, wet concrete, wet mortar, wood fired pizza ovens, work at height, work at height regulations, work at height regulations 2005  Leave a comment

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