Reports

The Cost of Accidents - Who Pays?

Hazards magazine has published a report about who pays the true costs of accidents. In March this year, the British Chambers of Commerce published its '2009 Burdens Barometer' which included 10 workplace safety regulations covering working time, chemicals, asbestos, explosives, biocides, work at height, vibration and nose, occupational exposure limits and the Corporate Manslaughter Act.

According to the British Chambers of Commerce these regulations cost business over £2.2bn a year. It is only in the small print that they mention that the calculations are 'net of the benefits that accrue to business'.

The report fails to include the significant benefits these regulations have brought to businesses, such as reduced sick leave, retention of trained staff, productive staff, avoidance of fines, compensation payouts, reputation loss, increased insurance costs etc. The issue of human cost is completely ignored.

The magazine article provides information on the true costs to society. For example, according to a HSE report in 2004, using 2001/02 figures, the cost of society of occupational ill-health and injury was believed to be between £20bn and £31.8bn.

The article includes quotes from families who have been bereaved following work-related fatalities.

Prosecutions

Fines After Worker Crushed to Death

The senior partner of a breakdown company has been fined £100,000 after an employee was crushed to death by a machine.

The prosecution follows an incident on 23 May 2006 when two employees were moving a five tonne press brake.

As the machine was being moved using a jack and rollers it toppled over and crushed one of the employees. Colleagues rushed to his assistance and used a Manitou reach truck to lift the machine up, but by the time the paramedics arrived the employee had died.

Investigations found the press was significantly 'top heavy' and there was always going to be a strong possibility of instability when it was raised.

George Robertson Graham, the senior partner at Auto Recoveries, Willowholme Industrial estate, Carlisle pleaded guilty at Carlisle Crown Court to breaching the Health and Safety at Work Act and was fined £100,000 and ordered to pay £20,000 in costs.

Health and Safety Executive (HSE) inspector Steve Smith said: "A man has tragically lost his life here and what is particularly sad about this is that the incident could have been prevented if the employer had ensured a safe system of work had been in place."

HSE Issues Risk Assessment Warning after Crusher Injury

Following a prosecution case concerning an incident in which a worker from Cardiff was severely injured when an 800kg piece of machinery fell on him, the Health and Safety Executive (HSE) is warning employers to ensure staff are trained to move heavy machinery safely.

In September 2006, the worker, Colin Mark Davies, was attempting to move a 'swarf crusher' with the assistance of a colleague. This 'swarf crusher' was actually part of a wheel lathe which Davies' employers – Pullman Design and Fabrication Ltd, of the Train Maintenance Depot, Leckwith, Cardiff – were using the refurbish the wheels of railway carriages.

They were moving the machine by placing 'skates' under its legs. In the course of this, the machine toppled over onto Mr Davies. His injuries included a broken collar bone, broken wrist, broken femur, back injuries and extensive bruising.

At Cardiff Crown Court, Pullman Design and Fabrication Ltd was fined £30,000 with £27,500 costs after pleading guilty to a charge under section 2(1) of the Health and Safety at Work etc. Act 1974. The offence concerned the company's failure to ensure, so far as was reasonably practicable, the health and safety of its employee, Mr Davies.

Following the case, HSE Inspector Hugh Emment, commented that the incident highlighted the need for employers to carry out suitable risk assessments to ensure that safe systems of work are in place before work is commenced.

Scaffolders Fined Over Roof Fall

A scaffolding company has been fined £27,000 after a self-employed roofer fell 25ft from a roof, breaking his arm.

The prosecution follows an incident on 21 September 2007 when the roofer was sheeting the roof of a new factory under construction at Whaley Road, Barugh, Barnsley.

The scaffolding at the roof edge did not comply with the requirements for fall protection and the man was able to slide between the scaffolding and the roof surface. As a result he fell 25ft, breaking his arm and sustaining facial injuries.

Pinnacle Scaffolding of Stockton on Tees, Cleveland, was fined £27,000 and ordered to pay costs of £6,000, and L J McLaren Engineering of Wooler, Northumberland, was also fined £10,000 and ordered to pay costs of £3,000, at Sheffield Crown Court.

Both firms pleaded guilty to breaching the Work at Height Regulations 2005.

Health and Safety Executive inspector David Bradley said: "On this occasion the roofer is lucky to be alive, although he has sustained significant damage to his arm and has not worked since the incident. The standards required for roof edge protection are clearly defined in the regulations and are straightforward to implement."

Lift Shaft Fall Highlights Hazards of Working at Height

The Health and Safety Executive (HSE) is warning lift manufacturers and maintenance companies working on lifts of the consequences of failing to protect staff by ensuring they work safely at height. This warning follows an incident in which a worker suffered serious injuries after falling 6.5m down a lift shaft from the second floor of a building.

At Lincoln Magistrates' Court, the UK Lift Company, of Blisworth, Northampton, was fined £2,000 after pleading guilty to breaches of regulations 4(1) and 6(3) of the Work at Height Regulations 2005. The company was also ordered to pay costs amounting to £8,000.

The breaches concerned the company's failure to, so far as was reasonably practicable:

- ensure work was carried out in a safe manner – regulation 4(1)
- take suitable and sufficient measures to prevent any person from falling a distance liable to result in personal injury – regulation 6(3).

The incident occurred at North Kesteven School, in Lincolnshire, in February 2008. Michael Richards, the UK Lift Company's assistant site manager fell down the school's lift shaft whilst attempting to help a lift engineer. As a result of the fall, he suffered a broken pelvis, other broken bones, fractures and ligament damage.

HSE Inspector Judith McNulty-Green said that the incident could easily have been avoided, as working at a lift landing with the landing door open was clearly unsafe. This danger was exacerbated by the presence of other people, particularly in a school where pupils were in the vicinity.

If a suitable risk assessment had been undertaken, protective measures could have been put in place. In this case, the installation of barriers and warning signs, and location of the working platform on the second floor would have provided better protection.

Guidance

Safety of Pressure Systems: Approved Code of Practice

The Health and Safety Executive (HSE) has published an Approved Code of Practice (ACOP) entitled 'Safety of Pressure Systems: Pressure Systems Safety Regulations 2000', (L112). This document gives practical and updated advice on how to comply with the requirements of The Pressure Systems Safety Regulations 2000 ('the Regulations') which aim to ensure appropriate controls over the risks created by a release of stored energy through system failure.

Background

The Pressure Systems Safety Regulations (PSSR) 2000 (SI 2000 No 128) came into force on 21 February 2000 and implemented the provisions of the Pressure Equipment Directive (PED) which was adopted in May 1997. The Regulations impose controls over systems which contain a liquid or gas under pressure, on the premise that if such installations fail in use, then they can seriously injure or kill people nearby and cause extensive damage to property. The Health and Safety Commission (as was) approved the first version of the associated ACOP back in 2000 and published updated versions in both 2001 and 2007; this most recent edition was issued in 2009.

The Regulations are concerned with steam at any pressure, gases which exert a pressure in excess of 0.5 bar above atmospheric pressure and fluids which may be mixtures of liquids, gases and vapours where the gas or vapour phase may exert a pressure in excess of 0.5 bar above atmospheric pressure. The Regulations do not consider the hazardous properties of the contents released following system failure (with the exception of the scalding effects of steam) as such issues are controlled under separate legislation. The Regulations do not apply simply as a result of pressure exerted by a head of liquid and nor are they designed to deal with vacuum conditions.

Target audience

This ACOP is aimed at duty holders under the Regulations ie, users, owners, competent persons, designers, manufacturers, importers, suppliers and installers of pressure systems.

Guidance content

This document contains the full text of the Regulations and provides guidance on their specific requirements. It also sets out the provisions of the ACOP which offer practical advice on how the Regulations may normally be satisfied.

The guidance and ACOP text follows the specified order of the Regulations and covers the following critical issues in relation to pressurised systems:

- design and construction
- provision of information and marking
- installation
- safe operating limits
- written scheme of examination
- examination in accordance with the written scheme
- action in case of imminent danger
- operation

- maintenance
- modification and repair
- keeping of records etc
- precautions to prevent pressurisation of certain vessels
- defences provided by the Regulations and exceptions to their application
- modification of duties in cases where pressure systems are supplied by way of lease, hire, or other arrangements
- marking of pressure vessels.

The ACOP also explains the nature of the inter-relationship between the PSSR, the PED and the implementing regulations in the UK: the Pressure Equipment Regulations 1999 (PER).

Appendix 1 of the ACOP comprises a useful user/owner decision tree which helps determine to what pressure systems the Regulations apply.

Protecting the Public: Your Next Move

Although accidents involving the construction industry have shown a steady improvement in recent years, it still remains an area that is notorious for accidents, both to construction workers, and also to children and other members of the public who are affected by the construction industry. The Health and Safety Executive (HSE) has published the second edition of guidance in relation to protecting the public. The document, Protecting the Public - Your Next Move (HSG 151), follows its original edition, first published in 1997.

The guidance is aimed at everyone involved in the construction process and comprises practical advice on how design, planning, maintaining and carrying out construction work can be carried out in such a way as to minimise the risks to health and safety of those who are affected by the construction activity but not necessarily involved in it.

The main legislation governing the safety of those affected by the construction industry is the Health and Safety at Work etc. Act 1974 (HSWA). This places a duty on all employers and the self-employed to take all steps that are reasonably practicable to ensure the health and safety of people who are not employed by them, but who are or may be affected by their business, for example, members of the public.

Employees also have a duty under the HSWA to co-operate with their employer on health and safety matters and not to do anything which puts others, including members of the public, at risk. As well as the main duty under the HSWA, duties also exist under the Construction (Design and Management) Regulations 2007 (CDM), the Management of Health and Safety at Work Regulations 1999, the Control of Substances Hazardous to Health Regulations 1999 and the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR).

The Protecting the Public guidance document is divided into five sections, and provides comprehensive and practical advice presented in a clear, concise manner:

- section one deals with the legislative aspects of protecting the public, outlining the legislation above
- section two looks at the site perimeter and other boundaries. It incorporates advice on the planning, provision and maintenance of site boundaries, and includes details on what should be taken into account when looking at security concerns in respect of site boundaries

- section three is concerned with developing authorisation procedures. It highlights that although for the most part access to construction sites is restricted to authorised personnel, there are occasions on which other personnel, such as members of the public, may have to gain access to the site. As such, the HSE guidance recommends the preparation and implementation of an authorisation procedure. This should focus on who will need to gain access to the site, controlling access to the site and informing visitors of entry procedures and rules regarding their visit to the site
- section four provides a summary of specific hazards and risks, and how they can be controlled. Issues such as scaffolding and other access equipment, openings and excavations, slips, trips and falls within pedestrian areas, plant, machinery and equipment, hazardous substances, storing and stacking materials, electricity and other energy sources, dust, noise and vibration, falling objects, delivery and other site vehicles and road works. A number of case studies are included in this section, providing examples which may be of use in identifying and assessing risks involving these areas
- section five looks at vulnerable groups and premises which require special attention. In terms of vulnerable groups, special consideration should be given to children, the elderly and individuals with certain disabilities. Cognisance is also given in this section of situations where it is the premises themselves that require special attention, such as construction work in schools, hospitals etc. Work in premises such as these takes careful thought and planning.

Finally, the guidance is complemented by an appendix, which provides assistance in identifying the hazards and evaluating the risks. A references section, and further reading list is also provided.

Gas Appliances: Keep Them Safe

The Health and Safety Executive (HSE) has published a revised version of leaflet INDG238(rev 3) entitled 'Gas Appliances - Get them checked, keep them safe'. This is a guidance leaflet aimed at anyone using, or in charge of a gas appliance, be it in a domestic, or a business/commercial setting.

Carbon monoxide poisoning attributable to poorly installed or maintained gas appliances and flues kills around 14 people every year in the UK. In addition to this, a number of people fall ill, but do not die, as a result of the same. Carbon monoxide is produced when gas and other common fuels such as coal, wood and oil don't burn properly. It cannot be seen, tasted or smelled but can have a fatal effect on humans exposed for even a relatively short time, particularly if exposure occurs during sleep, when some of the early symptoms - tiredness, nausea, headache, chest and stomach pains - cannot be felt so readily.

Carbon monoxide poisoning can be caused by:

- poorly installed appliances
- appliances that aren't working properly
- the appliance has not been checked for safety or undergone regular maintenance
- there is a lack of fresh air in a room
- the chimney or flue is blocked
- an engineer that is not on the Gas Safety Register has installed or maintained the appliance.

Some useful tips in avoiding carbon monoxide poisoning:

- if you suspect a gas appliance to not be working properly do not use it. Look for yellow/orange flames, soot/stains around the appliance and pilot lights that frequently blow out
- do not cover the appliance or block the convection air vents
- never block or obstruct any fixed ventilation grilles or air bricks
- be wary of appliances that are not of the room-sealed type, particularly if they are left running during the night
- carbon monoxide alarms can provide a very useful back-up precaution, however they should not be regarded as an alternative to regular maintenance of a gas appliance or correct installation
- carbon monoxide monitors must comply with current safety standards - BS EN 50291
- all owners/users of gas appliances are strongly advised to have appliances checked for safety at least every 12 months by a Gas Safe registered engineer. If you are over 60, chronically sick, disabled, deaf or hearing-impaired, blind or visually-impaired, you are entitled to join your supplier's Priority Service Register – free to join and entitles you to free annual gas safety check.

The Gas Safety (Installation and Use) Regulations 1998 places direct duties on gas consumers, installers, suppliers and landlords. The requirements should be read in conjunction with other regulatory instruments on combustion safety. Some of the requirements are summarised below:

- anyone carrying out work on gas appliances or fittings as part of their business must be competent and registered with the Gas Safety Register
- only a competent person can carry out work on gas appliances or fittings
- it is an offence to use any gas appliances or fittings that you know are unsafe
- the law requires that landlords are generally responsible for making sure that gas fittings and flues are maintained in good order, and gas appliances and flues are checked for safety once every 12 months. A record must be kept of the gas safety checks for at least two years and the latest certificate issued to tenants, both new and existing
- by law, with the exception of the room-sealed type, there are restrictions on the installation of gas appliances such as fires, boilers and heaters in sleeping accommodation. These restrictions only apply to appliances fitted after 1 January 1996 and to those already installed in rooms in rented accommodation which have been converted to bedrooms after 31 October 1998
- since 31 October 1998 is has been an offence to install in any room instantaneous water heaters which are not room-sealed or fitted with a safety device which automatically turns the gas supply off before a dangerous level of poisonous fumes builds up
- mains gas transporters/emergency service providers (ESPs) are legally required to make the situation safe, in the event of an emergency.