

RMT HEALTH AND SAFETY HANDBOOK



www.rmt.org.uk



INTRODUCTION

This Health and Safety Handbook contains many of the more common legal requirements concerning health and safety in the workplace - as well as some of the most frequent health and safety problems faced by RMT members and the general health and safety legislation which applies to these issues.

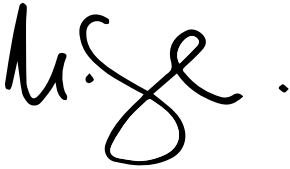
Since the previous edition of the Handbook there have been a number of changes, such as the UK leaving the European Union and a number of amendments, additions - and unfortunately some watering down of legislation. This re-write reflects these changes. When there are any changes to safety legislation which impact its content, we will re-write the relevant section and send to you to replace the old section with the new.

The purpose of this Handbook is to aid safety reps in carrying out their work, by providing basic information about their functions and entitlements, the role of the statutory bodies, and most importantly the duties imposed upon the employers in respect of many of the everyday hazards to which members are exposed while carrying out their work.

This Handbook is part of RMT's commitment to supporting our health and safety representatives and the vital role they perform in helping to make every workplace as healthy and safe as possible. The coronavirus pandemic showed us how important our safety reps are in the workplace - an army of safety reps out there battling away on members' behalf.

The aim of the RMT is for everyone to be able to work in safety without having their health damaged; we will continue to do whatever is necessary in support of this objective.

Yours in solidarity

A handwritten signature in black ink, appearing to read 'M. Lynch', followed by a period.

Mick Lynch
General Secretary

CONTENT

1. Health and Safety at Work etc. Act 1974	6
2. Enforcing Authorities	11
3. Accident Investigation	14
4. Management of Health and Safety At Work Regulations 1999	18
5. Risk Assessment	24
6. Safety Representatives and Safety Committees Regulations 1977	29
7. Workplace (Health, Safety and Welfare) Regulations 1992	35
8. Personal Protective Equipment At Work Regulations 1992 (PPE Regs)	44
9. Manual Handling Operations Regulations 1992	48
10. Work At Height Regulations 2005	52
11. Provision and use of Work Equipment Regulations (PUWER) 1998	57
12. Lifting Operations and Lifting Equipment Regulations 1998	66
13. Health and Safety (Display Screen Equipment) Regulations 1992 (As Amended In 2002)	71
14. Health and Safety (First Aid) Regulations 1981	76
15. Regulatory Reform (Fire Safety) Order 2005	80
16. Control of Substances Hazardous To Health Regulations (COSHH) 2002 . . .	89
17. Control of Asbestos Regulations 2012	96
18. Control of Noise At Work Regulations 2005	110
19. Control of Vibration At Work Regulations 2005	117
20. Fatigue	123
21. Dealing With Stress At Work	134
22. Working in Extreme Weather	137
23. Criminal Injuries Compensation Claims/Civil Assault Claims	146
24. Advice on Making a Claim When a Member Sustains Personal Injury	147
25. Advice on 'Serious and Imminent Danger'	154
26. Further Information	158

Please note: Throughout the Handbook there are references to Approved Codes of Practice and guidance, the significance of which are as follows:

ACOP (Approved Code of Practice): the HSE have responsibility under the Health and Safety at Work etc Act 1974 to produce Approved Codes of Practice that supplement the Regulations and provide a minimum standard. The ACOP gives practical advice on how to comply with the law. If this advice is followed, duty holders will be doing enough to comply with the law in respect of those specific matters on which the Code gives advice.

GN (Guidance Notes): many of the regulations also have Guidance Notes. Following the guidance is not compulsory, unless specifically stated, and employers are free to take other action. But if they follow the guidance they will normally be doing enough to comply with the law.

I. HEALTH AND SAFETY AT WORK ETC. ACT 1974

<https://www.legislation.gov.uk/ukpga/1974/37/contents>

Introduction

The primary safety legislation in the UK is the Health and Safety at Work etc. Act (H&SWA) and given this it is important that RMT safety reps are familiar with the Act.

Application

H&SWA applies to virtually all workplaces and work situations in Great Britain.

However, the scope for this law to protect the self-employed was undermined by the Health and Safety at Work etc Act (General Duties of Self-Employed Persons) (Prescribed Undertakings) Regulations 2015 (SEPPU). As a result of these Regs, H&S law now only applies to “relevant” self-employed people. These are either self-employed people whose work activity is specifically mentioned in the regulations, or anyone whose work activity poses a risk to the health and safety of others.

H&SWA is an enabling act, which means it is the legal facility under which other health and safety regulations, for example the Management of Health and Safety at Work Regulations 1999, are made.

It allows the establishment of institutions for the development, control and enforcement of the various legal requirements, and the creation of general duties that largely set today’s standards of health, safety and welfare in and around most land-based places of work.

The main duties under the Act fall upon employers; it makes them responsible for:

People – direct employees, contractors, members of the public who might be in or near a workplace at any given time

Premises – plant and machinery, every part of the workplace whether fixed or moveable/moving including vehicles or equipment which people use in the course of their work outside the workplace. Additional duties are placed on manufacturers and suppliers in respect of equipment

Processes – all physical and chemical processes and working systems from the provision and storage of materials to the final production and delivery of products or services, including the disposal of waste and by-products.

The general duties in Section 2 H&SWA contain important health and safety principles that apply to all types of work activity and situations.

Key features of H&SWA:

H&SWA is written in very general terms. The term 'so far as is reasonably practicable' recurs throughout H&SWA (and other health and safety legislation), and broadly means that a balance must be struck between on the one hand the degree of risk, and on the other the cost in terms of time, trouble or money in eliminating or reducing that risk. It may be considered not reasonably practicable where the cost is calculated to be **significantly** greater in proportion to the risk.

General duties of employers to their employees, Section 2:

Section 2(1)

This places a general duty on employers to ensure the health, safety and welfare of their employees.

Section 2(2)

This section imposes a general duty on all employers to ensure, so far as is reasonably practicable, the health, safety and welfare of all employees. In particular:

- the provision and maintenance of plant and systems of work that are safe and without risks to health
- arrangements for ensuring safety and absence of risks to health in connection with the use, handling, storage and transport of articles and substances
- the provision of such information, instruction, training and supervision as is necessary to ensure the health and safety at work of employees
- the maintenance of any place of work under the employer's control in a condition that is safe and without risks to health
- the provision and maintenance of means of access to and egress from the place of work that are safe and without risks to health; and
- the provision and maintenance of a working environment that is safe, without risks to health, and adequate as regards facilities and arrangements for employees' welfare at work.

Safety Policy, Section 2(3)

Employers are required to have a written statement of their health and safety policy, which must be revised as necessary. For example, where the structure of the company is changed, or a reorganisation of senior personnel takes place. The policy should be signed and dated, and representatives can use this information to check whether it is still relevant to the current structure and organisation of the company.

The policy must set out a general statement of the employer's aims and objectives for improving health and safety at work, and the organisation and arrangements to meet this objective. Ideally a mechanism for revision should be written into the

document to provide for any significant changes in workplace conditions, control measures or managerial reorganisations.

The health and safety policy is there to ensure that employers give careful consideration to the nature of the hazards at the workplace and the steps that are needed to eliminate or reduce them. The policy is also there to heighten the employees' awareness of what the employer is committed to and the arrangements that are in force for their safety. There is a requirement, therefore, to bring the policy to the notice of all employees.

Employers Duties to Consult, Section 2(6)

Employers have a duty to consult with their health and safety representatives with a view to establishing and maintaining arrangements which will enable effective co-operation with employees in the promotion and development of health and safety measures, and in checking they are working as intended.

Safety Committee, Section 2(7)

This requires employers to set up a safety committee where two or more safety reps request this.

Employers duties to people who are not their employees, Section 3

Employers must conduct their undertaking in such a way as to ensure, so far as reasonably practicable, that non-employees such as visitors, customers or contractors, are not exposed to risks to their health or safety.

General duties of persons concerned with premises to persons other than their employees, Section 4

This places a duty on anybody responsible for places of work to ensure that premises themselves, as well as plant and machinery in them, do not endanger the people using them.

General duties of manufacturers etc. as regards articles and substances for use at work, Section 6

This places duties on anyone who designs, manufactures, imports or supplies any article or substance for use at work to ensure, as far as it is under their control, that the article or substance is safe when used in accordance with information supplied by him/her. The duty extends to the provision of information and the carrying out of necessary testing, inspection and research. Those who install plant also have a duty to ensure that it is safely installed.

Employee's duties to self and others, Section 7

All employees must take reasonable care for their own health and safety and for other people who may be affected by what they do or omit to do. This is not just a matter of not doing anything that is reckless, but involves an understanding of workplace hazards and complying with safety rules and procedures so that they and others are not put at risk. They must also co-operate with their employer or other person in complying with any duty or requirement imposed upon them by any health or safety legislation.

Duty not to interfere with or misuse things provided pursuant to certain provisions, Section 8

This places a duty on everyone not to misuse anything provided in the interests of health and safety at work under statutory requirement.

Cost of Safety Equipment, Section 9

Employers are not permitted to levy a charge on employees for anything they do or provide for health and safety where the provision is required by law e.g., hearing protection provided under the Control of Noise at Work Regulations 2005.

Subordinate Legislation, Section 15

The H&SWA empowers the Secretary of State to introduce legally enforceable health and safety regulations. These generally cover a specific subject or activity, and stipulate detailed duties necessary to meet the broad aims contained in the Act. Regulations can stipulate that non-compliance with particular requirements is a criminal offence. They can also provide for specific defences in criminal proceedings.

Approved Codes of Practice (ACOP), Section 16

The HSE and other enforcing authorities can also issue formal guidance through ACOP. This typically provides advice on the requirements to be followed and action to be taken to comply with the law. However, it does not have legal force, but generally represents best practice at the time of its publication. Although failure to comply with any provision of an ACOP is not in itself an offence, it may nevertheless be a strong indication that a contravention of the law has occurred. ACOPs do not have to be followed exactly but employers should not do less than the standard.

Guidance notes are also produced to help employers interpret their responsibilities. They are largely advisory and not all Regulations have guidance notes.

Enforcing Inspectors to provide information, Section 28(8)

This requires enforcing inspectors to supply certain information on health, safety and welfare matters to workers or their reps.

Prosecutions, Sections 38 & 39

Proceedings in England and Wales for an offence against any of the relevant statutory provisions under the H&SWA may only be instituted by or with the consent of the Director of Public Prosecutions, or by an enforcing authority Inspector. In Scotland, proceedings for any such offence are instituted by the Procurator Fiscal to whom the enforcing authority Inspector will make the initial submission.

2. ENFORCING AUTHORITIES

Introduction

There are a small number of different authorities who have the responsibility to oversee and enforce health and safety legislation within the workplace. Which of these authorities may apply to any particular activity can depend on either the nature of the undertaking, where the work is taking place or the type of risk involved. The main divisions between each of the authorities are set out within the relevant governing legislation.

Health and Safety Executive

<https://www.hse.gov.uk/>

The Health and Safety Executive (HSE) is the leading enforcing authority of health and safety legislation for the majority of workplaces including factories, farms, building sites, mines, schools and colleges, fairgrounds, gas, electricity and water systems, hospitals and nursing homes, central and local government premises and offshore installations.

HSE are sponsored by Department for Work and Pensions and are ultimately accountable to Parliament through the Secretary of State.

Local Authorities, (Health and Safety (Enforcing Authority) Regulations 1998)

<https://www.legislation.gov.uk/ukSI/1998/494/contents>

In relation to certain activities such as those involving the sale of goods, offices, leisure or catering, the Local Authority is the enforcing authority in respect of all the activities carried out on those premises. Environmental Health Officers employed by the Local Authorities have the same powers as Inspectors from the other enforcing authorities.

Office of Rail and Road Regulator

<https://www.orr.gov.uk/>

Health and Safety (Enforcing Authority for Railways) Regulations 2006

<https://www.legislation.gov.uk/ukSI/2006/557/contents/made>

Health and Safety is the enforcing authority in respect of the operational railway, tramways, or other guided transport systems, regardless of whether or not they form the main activity carried out within the premises.

However, in other situations, such as retail units on stations, railway offices or training centres that do not form any part of any operational premises and new build projects until such time as they become an operational railway, either the HSE or Local Authority remain as the enforcing authority whichever the case may be.

ORR are funded by the rail industry through licence fees and safety levies.

The Office of Rail Regulation also serves as the economic regulator for the main line railway. HM Railway Inspectorate is the safety arm of ORR and employs Inspectors who have direct responsibility for the enforcement of health and safety legislation.

Fire and Rescue Authority, Article 25, Regulatory Reform (Fire Safety) Order 2005

<https://www.legislation.gov.uk/ukSI/2005/1541/article/25>

The Fire and Rescue Authority for the area concerned generally have responsibility for the enforcement of all fire safety legislation within non-domestic premises and workplaces with the exception of construction sites, for which the HSE are the enforcing authority.

Relationship with Health and Safety Representatives

Enforcing authorities recognise the contribution that health and safety representatives make to health and safety and the need to communicate effectively with them. The policy of the Enforcement Authority is to:

- support health and safety representatives in the carrying out of their functions
- always make contact during site visits other than in exceptional circumstances; and
- adopt a policy of openness so far as the law allows.

Contact on all site visits is not necessarily appropriate but where it is, the policy is to advise representatives of the reasons for the visit and the outcome, and give representatives the opportunity of raising health and safety concerns and issues. Inspectors should also give representatives the opportunity to speak privately with them if requested.

Where the health and safety representative is not available at the time of the visit, the Inspector should make contact with any other relevant trade union official present, and make arrangements for the representative to be informed of the visit and contact details should they wish to discuss the results and consequential actions arising from the visit.

(HSE, Local Authority and ORR Policy)

Inspectors' Powers, H&SWA, Section 20 Regulatory Reform (Fire Safety) Order, Article 27

Enforcing authority Inspectors have wide-ranging powers, which include (subject to their instrument of appointment) the right to:

- enter premises
- inspect and investigate
- take copies of relevant documents
- take measurements, samples, and photos
- seize, render harmless or destroy dangerous items
- issue improvement and prohibition notices
- bring prosecutions
- interview and take statements (Not Fire Inspectors)

Enforcement Notices

There are two types of enforcement notice that an enforcing authority Inspector can issue:

Improvement Notice

(Section 21, H&SWA)

(Article 30, Regulatory Reform (Fire Safety) Order)

The first is an improvement notice, which may be issued when they consider that a legislative requirement is being breached. The notice should specify what the contravention is believed to be, and the date by which remedial action should be taken.

Prohibition Notice

(Section 22, H&SWA)

(Article 31, Regulatory Reform (Fire Safety) Order)

Alternatively, where it is considered activities related to any of the statutory provisions could give rise to serious personal injury, an Inspector can issue a prohibition notice specifying the provision being contravened and banning the continuation of the activities. Such a notice may take immediate effect, or it may apply from the end of a period specified in the notice.

Appeals

(Section 24, H&SWA)

(Article 35, Regulatory Reform (Fire Safety) Order)

A person served with an improvement or prohibition notice can appeal to an Employment Tribunal (Magistrates Court in the case of fire safety). In the case of an appeal against an Improvement Notice, enforcement is suspended until the Tribunal has adjudicated, but a Prohibition Notice remains in force unless the Tribunal agrees to suspend it.

3. ACCIDENT INVESTIGATION

Introduction

In the event of a serious accident, different statutory bodies have legal powers of investigation. While the primary purpose of any such investigation would be to establish the facts and where necessary make recommendations with a view to improving health and safety, in the case of the enforcing authorities, they can also bring about a prosecution of individuals or organisations for any health and safety offence that such investigation may reveal.

Although health and safety representatives are entitled to examine the cause of any workplace accident, in those cases where any of the statutory bodies are conducting their own investigation, the representatives should take particular care not to interfere with or obstruct that process. Neither should they seek to enter the accident site or any area that has been cordoned-off without permission of the appropriate authority.

Health and Safety Inspectors

Inspectors appointed by enforcing authorities have the power to carry out any necessary or relevant investigation; see Section 20(2)(d), H&SWA.

The HSE or the ORR (Section 14 H&SWA and Schedule 3, Railways Act 2005), can also investigate or delegate another person to investigate and make a special report on any such accident, occurrence or other matter which they feel it necessary or expedient for the purposes of health and safety or with a view to the making of regulations for those purposes. They may cause so much of any such report to be made public at such time, and in such manner as they think fit.

Work-Related Deaths

Where a work-related death occurs and the investigation gives rise to a suspicion that a serious criminal offence (other than a health and safety offence) may have caused the death, the police will assume primacy for the investigation and will work in partnership with the relevant enforcing authority. However, where it becomes apparent during the investigation that there is insufficient evidence of a serious criminal offence, the investigation should, by agreement, be taken over by the relevant enforcing authority.

(Police/HSE/ORR Protocol Agreement)

Rail Accident Investigation Branch (RAIB)

<https://www.gov.uk/government/organisations/rail-accident-investigation-branch>

Organisation

The Rail Accident Investigation Branch (RAIB) was established as an independent railway accident investigation organisation following a recommendation

in Lord Cullen's inquiry report on the Ladbroke Grove rail accident in 1999. It was established by the Railways and Transport Safety Act 2003 <https://www.legislation.gov.uk/ukpga/2003/20/contents>

RAIB's sphere of operation extends to the whole of the national railway networks within Britain and Northern Ireland, the London and Glasgow Underground systems, other metro systems, tramways, and heritage railways (see Section 14, Rail and Transport Safety Act 2003). However, it does not normally cover railways within industrial premises, including factories, docks, mines, freight terminals and quarries, unless the accident or incident occurred on entering or leaving the industrial premises.

The general aims of RAIB are to improve safety on the railways and to prevent accidents and/or railway incidents (Section 4, Rail and Transport Safety Act 2003). RAIB must investigate any serious accident and, where directed to do so by the Secretary of State, any non-serious accident. It can also investigate non-serious accidents on its own account (see Section 7(1), Rail and Transport Safety Act 2003). They do not normally investigate accidents to workers except those involving train movements.

Railways and Transport Safety Act 2003, Section 8 gives RAIB inspectors the legal power to enter railway property, seize anything relating to the accident or incident under investigation, require disclosure of relevant records or information, and require people to answer questions about anything pertinent to the investigation. It is a criminal offence for anyone to knowingly make a false statement, provide inaccurate or misleading information, or obstruct an Inspector in the course of their investigation.

Railways (Accident Investigation and Reporting) Regulations 2005

<https://www.legislation.gov.uk/uksi/2005/1992/contents/made> contain more detailed provisions relating to investigations by RAIB.

Duty to notify

Rail industry bodies whose staff or property are involved in accidents or incidents, have a duty to inform RAIB of the details within a defined timescale depending upon the seriousness of the event (Regulation 4, Railways (Accident Investigation and Reporting) Regulations 2005). Comprehensive details of the accident must be provided; see Regulation 4(7). RAIB then has a period of seven days from receipt of the notification to decide whether to commence an investigation. As above, they must investigate serious accidents (or accidents that could have been serious in slightly different circumstances) (Regulation 5(3)).

If having initially decided not to investigate new information emerges beyond the seven-day period which suggests there may be lessons to be learned from it, an investigation can still commence (Regulation 5(14)).

Conduct of investigations

RAIB/BTP/ORR Memorandum of Understanding explains that where the police or Railway Inspectorate are also involved, RAIB will normally lead or oversee the technical investigation and take charge of any evidence already secured. However, where there is a suspicion of serious criminality e.g., terrorism or sabotage, they will assist the police where necessary, but any parallel investigation into emerging safety issues they may conduct must remain independent.

Except where necessary to save life, prevent further injury or damage, prevent danger or protect the site, no-one is permitted access to the site of an accident or incident or to remove/interfere with anything on the site, without the consent of an Inspector (or person appointed to conduct the investigation) until such time as RAIB has concluded its examination or removal of evidence at the site, or determined that it will not conduct an investigation (Regulation 7). A failure to comply with this requirement is a criminal offence.

Inspectors (or investigating persons) can direct persons to list evidence in their possession or control relating to an accident investigation. They also have a duty to preserve any evidence (Regulation 8).

A railway body, manufacturer of components etc must not move or use any evidence relevant to an investigation without consent, except where necessary to save life, prevent further injury or damage, prevent danger or protect the site (Regulation 9). A failure to comply with this requirement is also a criminal offence.

Railways (Accident Investigation and Reporting) Regulations 2005, Regulation 10 states that if a railway worker is required to be interviewed by a RAIB Inspector, they can if they wish be accompanied by a friend or a trade union representative (see RAIB Guidance on the Railways (Accident Investigation and Reporting) Regulations 2005) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/456936/guidance_to_rair_reggs_v4.pdf.

Regulation 10 describes the circumstances when evidence can be disclosed. Importantly, the Inspector is not permitted to disclose the content of a worker's interview without their consent to or unless permitted to do so by a Court Order (Regulation 10(2)).

Accident and Incident reports

RAIB are required to publish a report on any accident or incident investigated usually within one year of the date of occurrence (Regulation 11). While the report may make use of the information provided by witness statements, it will not say who provided that information unless this is allowed by a Court Order (Regulation 10(3)).

RAIB has no powers to enforce any of their recommended actions to prevent or reduce the possibility of a similar accident or incident in the future. Instead, all recommendations have to be addressed to the Railway Inspectorate who then have the responsibility to ensure appropriate action is taken by the relevant employer or railway undertaking, using their enforcement powers where necessary to ensure compliance (Regulation 12).

Before publishing the report, RAIB are required to send a copy or relevant part of it to all interested parties, who will normally have fourteen days to make any representations about the content they believe necessary. Any such representations must then be considered by RAIB, who may consequently amend the report if appropriate (Regulation 13).

RMT Members Attending Interviews

Where any of the statutory bodies such as RAIB, HSE or the Railway Inspectorate wish to interview an RMT member who may have pertinent information relating to a serious accident or dangerous incident, the employing manager may want a representative of the Company to be present. It is important to note that management have no right to insist on this.

Often the proposed management representative will be a solicitor acting on behalf of the Company and it may be suggested that they could also represent the interests of the member. Caution is needed here. There may be a conflict of interest between the employer and the member and, if there is, a solicitor cannot act for both. This would be a breach of their core professional duties (The Solicitors Regulatory Authority Code of Practice for Solicitors para 6.2).

Management have no right to insist that a representative of the Company be present at such an interview. Accordingly, where a member is required to attend an interview with any of the statutory bodies, they should be advised to contact their Branch Secretary or Regional Office as soon as possible, and arrangements will be made for them to be accompanied by an RMT representative. Where it is advised that the interview will be taking place under caution, an application for legal assistance should be immediately submitted to Head Office.

4. MANAGEMENT OF HEALTH AND SAFETY AT WORK REGULATIONS 1999

<https://www.legislation.gov.uk/uksi/1999/3242/contents>

HSE guidance Managing for Health and Safety (HSG65)

<https://www.hse.gov.uk/pubns/books/hsg65.htm>

Introduction

The Management of Health and Safety at Work Regulations sometimes referred to as the Management Regs, clarify what employers must do to fulfil their duties under H&SWA 1974.

They also contain specific requirements in relation to such matters as risk assessments, training, shared workplaces, emergency procedures and the provision of information. These requirements are mostly absolute and therefore not subject to the test of reasonable practicability. (There are two types of duties on employers - absolute duties, which are clear and specific and must be obeyed to the letter, and qualified duties which can be open to argument).

Risk Assessment, Regulation 3

At the heart of the regulations is the requirement for employers to undertake a 'suitable and sufficient' assessment of the risks to the health and safety of employees and others, who might be affected by the work or the way in which it is carried out.

What is meant by "suitable and sufficient" is not defined in the Management Regs, but the HSE in its approved code of practice explains this to mean that a proper check is made to identify the risks arising from or in connection with work.

Issues that should be considered for a risk assessment to meet the legal bar of "suitable and sufficient" are as follows:

- Demonstration that reasonable steps have been taken to identify hazards, e.g., by researching relevant legislation, guidance, medical research and advice from competent sources
- Consideration of all those who might be affected whether they are workers or others, such as members of the public
- Appropriateness to the nature of the work; it should identify the period of time for which it is likely to remain valid and it should be proportionate to the risk
- Ensure that the significant risks of hazards are addressed
- Ensure that all aspects of the work activity are reviewed, including routine and non routine activities, all parts of the work activity, including those that are not under the immediate supervision of the employers, e.g. employees working off-site such as contractors.

The assessment should identify how the risks arise, how they impact upon those affected, and what needs to be done to control or eliminate them. Young people should not be employed unless a suitable and sufficient risk assessment has been carried out (Regulation 3(4), (5)).

Principles of Prevention to be applied, Regulation 4

This requires employers to base any preventative and protective measures they implement on the principles set out in Schedule 1, which are as follows:

- (a) avoiding risks;
- (b) evaluating the risks which cannot be avoided;
- (c) combating the risks at source;
- (d) adapting the work to the individual, especially as regards the design of workplaces, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health;
- (e) adapting to technical progress;
- (f) replacing the dangerous by the non-dangerous or the less dangerous;
- (g) developing a coherent overall prevention policy which covers technology, organisation of work, working conditions, social relationships and the influence of factors relating to the working environment;
- (h) giving collective protective measures priority over individual protective measures; and
- (i) giving appropriate instructions to employees.

The above hazard controls can be summarised in the “hierarchy of control”. They are in order of decreasing effectiveness:

- Elimination
- Substitution
- Engineering controls
- Administrative controls
- Personal protective equipment

More detailed information on these principles of prevention together with risk assessments in general can be found in the next Chapter.

Arrangements for Health and Safety, Regulation 5

Employers must make arrangements for the effective planning, organisation, control, monitoring and review of the preventative and protective measures necessary for health and safety.

Where the employer employs five or more employees, he shall record the arrangements.

Health Surveillance, Regulation 6

This regulation provides that 'Every employer shall ensure that his employees are provided with such health surveillance as is appropriate having regard to the risks to their health and safety which are identified by the assessment.'

RMT advise that health surveillance is necessary where:

- there is an adverse health condition or disease associated with the work concerned and detection of it is technically feasible
- it is reasonably foreseeable that the conditions of work could give rise to the condition or disease; and
- the results of surveillance are likely to assist in protecting the health of those exposed.

RMT also maintain that appropriate level and frequency of health surveillance will need to be determined by a person with suitable training and experience. However, both the employees concerned and their health and safety representative should be consulted and provided with the opportunity to comment on such matters and should also be given access to an appropriately qualified doctor for advice.

The primary aim of any health surveillance should be the detection of adverse health effects at an early stage, but in addition it can also provide a means of checking whether the established control measures are effective. Once it is decided that health surveillance is appropriate, in most cases it will need to be maintained during the entire period the person is employed and should only be carried out by competent and qualified people. Individual records should also be kept.

Health and Safety Assistance, Regulation 7

Employers must appoint one or more competent persons with sufficient experience or knowledge and other qualities to assist them in complying with the requirements of health and safety legislation.

The competent person may not always need to possess particular skills or qualifications. In straightforward cases, all they may need is a good knowledge of the work process, the hazards and risks involved, and an understanding of relevant best practice (Regulation 7(5)).

Persons appointed must be given sufficient information, co-operation, time and resources to carry out their duties under Regulation 7 (see Regulation 7(4)).

Procedures for Serious and Imminent Danger, Regulation 8

Employers must establish procedures to be followed in the event of serious and imminent danger to employees and appoint competent people - competency is defined as where someone has sufficient training and experience or knowledge and

other qualities to enable him properly to implement the evacuation procedures. The procedures should include the nature of the risk and how it should be responded to (as far as is reasonably practicable) and ensure they stop work and immediately proceed to a place of safety in the event of their being exposed to serious imminent and avoidable danger, and do not return to work until the danger is removed.

Danger Areas, Regulation 8

Employers should also ensure that employees are not permitted access to any area of the workplace to which restricted access is necessary for reasons of health and safety, unless they have received adequate health and safety instruction.

Contact with External Services, Regulation 9

Employers should ensure that appropriate external contacts are in place to make sure there are effective provisions for first aid, or the attendance of any of the emergency services.

Information to Workers, Regulation 10

Employers must give employees comprehensible and relevant information about risks to health and safety. They must also provide:

- information as to the preventative and protective measures being taken to control the risks
- emergency procedures in case of serious and imminent danger; and
- the identity of any person nominated to assist with any evacuation.

Co-operation and Co-ordination Between Employers, Regulation 11

Workplace Occupancy

Where there are two or more employers sharing the same workplace, they must co-operate with each other to ensure compliance with relevant health and safety legislation and co-ordinate any measures undertaken to comply with the relevant statutory provisions. The employers must also advise each other of the risks arising from their work activities that could affect their respective workers.

Working in Other Employer's Premises, Regulation 12

When employers have workers in from another company, such as contractors or agency staff, they must inform them of any risk to health and safety arising from the company's work activity, and the measures taken.

The host employer is also required to take all reasonable steps to ensure the workers receive sufficient information to enable them to identify any person nominated to assist with any evacuation so far as they are concerned. The host

employer shall also ensure that workers are provided with appropriate instructions and information regarding risks to their health and safety.

Capability and Training, Regulation 13

When allocating work to employees, employers should ensure that the demands of the job do not exceed the employees' ability to carry out the work without risk to themselves or others.

Employers should also ensure employees are provided with adequate health and safety training:

- on recruitment i.e., induction courses
- following any change of job or responsibilities
- following any change to the system of work
- upon introduction of new technology; and
- upon significant modification of equipment. The risk assessment will help determine the level of training and competence needed for each type of work. Appropriate refresher training should be given and where necessary take account of any changes in circumstances. All training should be during normal working hours, but if this is not possible, it must be looked on as an extension to the time worked.

Employees Duties, Regulation 14

Employees have a duty to bring to the notice of their employer or competent person any shortcoming in the employer's health and safety arrangements, or any situation the employee believes constitutes a serious and imminent danger.

Every employee shall use any machinery, equipment, dangerous substances, transport equipment, or safety device provided to him by the employer in accordance with training and instructions provided by the employer.

Temporary Workers, Regulation 15

Employers must provide comprehensive information to fixed-term and agency staff who work on the premises.

New or Expectant Mothers, Regulation 16 to 18

The term 'new or expectant mothers' means women who are pregnant, those who have recently given birth or who are breastfeeding.

Employers are required to carry out a risk assessment if there are women of child-bearing age or new/expectant mothers who could be at risk from either the work process, working conditions or exposure to physical, chemical or biological hazards.

In this respect –

- working conditions include lone working, exposure to violence and excessive working hours
- physical hazards include noise, radiation, and vibration; and
- biological or chemical hazards

Avoidance of Risk

Where an employer is notified in writing that an employee is pregnant, has given birth within the last six months or is breastfeeding, and the risk assessment identifies risks to new or expectant mothers that cannot be avoided by the control measures put in place by the employer, more direct action to remove the employee from the area of risk must be taken.

If it is reasonable to do so and would avoid the risks, the employer must alter the working conditions or hours of work. If not, she should be offered any other suitable work that is available.

However, where this is not feasible, as a last resort the employer will need to suspend her from work on full pay so long as is necessary to avoid the risks.

Certificate from registered medical practitioner in respect of new or expectant mother, Regulation 17

New or expectant mothers who work at night may also be suspended from such work if a doctor or midwife signs a certificate saying that this course of action needs to be taken on grounds of health and safety.

There are also similar provisions for agency workers (see Regulations 16A, 17A, 18A, 18AB).

Protection of Young Persons, Regulation 19

Employers must take steps to protect young people from risks that arise as a consequence of their immaturity, lack of experience and awareness of existing or potential risk.

Except as stated below, young persons must not be employed for work that:

- is outside their physical and/or mental capacity
- involves exposure to agents which are toxic or carcinogenic, cause heritable genetic damage or harm to unborn children, or has a chronic effect on their health
- involves harmful exposure to radiation; or
- involves a risk to health from extreme cold, heat, noise or vibration

Where the work is part of the young person's training and they are under competent supervision, the prohibitions do not apply but employers are nevertheless required to reduce the risk to as low a level as is reasonably practicable.

5. RISK ASSESSMENT

Introduction

The Management of Health & Safety at Work Regulations 1999 require employers to carry out a suitable and sufficient assessment of any risks to health and safety that their employees or others may be exposed to within the workplace or as a result of how the work is carried out.

Before starting it is important to understand two key terms used in all risk assessments, which the HSE in their “Managing risks and risk assessment at work guidance” define as follows:

Hazard - meaning anything that could cause injury or illness

Risk - how likely it is that someone could be harmed and how seriously

Other Legislation

It is important to be aware that other more specific regulations also require risks to be assessed, but where more than one set of regulations may apply, it is only necessary for a single assessment to be made. The more common of these regulations include:

TITLE	RISKS TO BE ASSESSED
Manual Handling Regulations	Manual handling operations which cannot be avoided and which involve a risk of injury
COSHH Regulations	Exposure to substances hazardous to health
Noise Regulations	Exposure to levels of noise liable to cause harm
Display Screen Regulations	Use of display screen equipment including any associated workstation
Asbestos Regulations	Exposure of people to asbestos dust
Personal Protective Equipment Regulations	Risks to health and safety which have not been avoided by other means
Vibration Regulations	Exposure of people to hand-arm or whole-body vibration

What the Law Requires

While each of these assessment requirements may have a slightly different purpose, they all help the employer make decisions about what needs to be done to prevent people being harmed.

The same applies to the assessment provisions of the Management of Health and Safety at Work Regulations, which are all embracing over all other workplace health and safety legislation, including the general duties in H&SWA.

The Management of Health and Safety at Work Regulations also require any assessments to take particular account of how the relevant hazard may affect the health and safety of any new or expectant mothers and any young workers (those aged under 18) within the workforce.

Consultation

Most workplace hazards do not require complicated risk assessment techniques. The law requires that the person conducting the assessment must be competent, which means they must have a knowledge and understanding of the work involved. In addition, they should have a good measure of sound judgement and common sense that needs to be used in conjunction with a basic system of evaluation.

Whilst it is the employer's responsibility to undertake risk assessments, the TUC advise that health and safety representatives should be involved in the process. Those who undertake the work that is being assessed are a valuable source of information as to what it involves and the effectiveness of any control measures. Health and safety representatives can act as an effective channel for those views, and they also have a legal right to be consulted on the outcome of any risk assessment.

The Process

The risk assessment process basically involves five steps (see HSE 5 steps to risk assessment <https://www.hse.gov.uk/simple-health-safety/risk/steps-needed-to-manage-risk.htm>):

Step 1 – Identify the hazards

Remember that some work activities may create a number of different hazards, each of which will need to be separately assessed. A separate assessment may also be required where the hazard remains the same, but the likelihood changes, e.g. the risk from a tripping hazard may be greater at night.

Step 2 – Decide who may be harmed and how

This may need to include contractors, visitors and others who might not be in the workplace all the time. Special attention may also need to be given to young workers and trainees who, because of their inexperience, could be at particular risk.

Step 3 – Evaluate the risks and decide whether existing precautions are adequate or whether more needs to be done

This involves consideration as to how likely it is that a hazard could cause harm. Are there any accident or incident statistics available to use as a guide? Are existing precautions sufficient? The final question to be asked is whether everything has been done to eliminate or reduce the risks as far as is reasonably practicable?

When considering control measures, the following general principles of prevention should be applied:

- wherever possible avoid the risk altogether
- combat the risks at source
- adapt the work to the individual
- take advantage of any technical progress
- replace the dangerous with the non-dangerous or less dangerous
- develop a coherent prevention policy with the aim of reducing risks that cannot be eliminated or avoided altogether. This should take account of the way work is organised, the working conditions, the environment and any relevant social factors
- give priority to measures which protect the whole workplace over individual protective measures such as personal protective equipment
- ensure that workers understand what they must do.

Step 4 – Record the findings

Organisations with more than five employees are required to keep a written record of the significant findings of any risk assessment. This should contain enough detail to demonstrate a suitable and sufficient assessment has been carried out. As a minimum it means recording the hazard and any existing and further measures needed to control the risks.

Step 5 – Review the assessment and revise if necessary

Risk assessments should be reviewed on a regular basis and revised as necessary. The nature of the work can change a great deal over a period of time. New ways to better control or eliminate the risks may also become available. Assessments should also be reviewed if any changes are made to the work activity that could affect the risks or following any relevant accident or near miss that may suggest an assessment is no longer valid.

Evaluation

The level of detail in an assessment should generally be proportionate to the risk, so whereas low risk industries may only use the simpler types of assessment, the larger and more hazardous industries like the railways use a whole range of different methods from the simple to the highly sophisticated, depending upon scope and complexity of the hazards involved.

The most common and simple method of assessing local risks is by use of a semi-quantitative scoring system to guide and direct the assessor's judgement. These scores are also useful in helping to prioritise required actions where a particular activity gives rise to several hazards. For this reason, it is often known as a risk-ranking system.

There are a number of different variations of this type of assessment, most of which consist of a series of numbered categories representing the likelihood of a given event, and the severity of harm that could be expected. The greater the probability and the more severe the possible outcome, the higher the category number should be. Thus a five level system might look something like this:

CATEGORY	LIKELIHOOD	HARM
1	Improbable	Minor
2	Remote	Lost Time Injury
3	Possible	3+ Days Injury
4	Probable	Major
5	Frequent	Fatal

The categories are placed in a matrix with the numbered categories of likelihood running along the top, and those relating to the degree of harm running down the side as follows:

		LIKELIHOOD					
		1	2	3	4	5	
H		5	6	7	8	9	10
	A	4	5	6	7	8	9
R		3	4	5	6	7	8
	M	2	3	4	5	6	7
		1	2	3	4	5	6

Using the matrix, the hazard can then be assessed against each scale taking account of the effectiveness of any existing control measures. The two resulting numbers should then be added together, and if the score is between:

2 to 4 the risk is considered **Low**, and normally requires no further action

5 to 7 the risk is considered **Medium**, and further reasonably practicable control measures to reduce the risk should be considered

8 to 10 the risk is considered to be **High**, and further reasonably practicable control measures to reduce the risk are required.

In the past, the two numbers were often multiplied to obtain the risk ranking score, but it was then found that using such a method exaggerated the middle at the expense of the lower and higher ranges. Thus the possibility of frequent minor

Health and Safety at Work Handbook

accidents or rare high consequence accidents could end up being ignored because they generally scored within the low risk category which normally requires no further action.

For more information see TUC Risk Assessment, a guide for Safety representatives
<https://www.tuc.org.uk/sites/default/files/extras/riskassessment.pdf>

6. SAFETY REPRESENTATIVES AND SAFETY COMMITTEES REGULATIONS 1977

<https://www.legislation.gov.uk/uksi/1977/500/contents/made>

Introduction

The Safety Representatives and Safety Committees Regulations (SRSC Regs) give practical effect to the entitlement under Section 2(4) H&SWA, for recognised trade unions to appoint health and safety representatives and for the establishment of safety committees.

It also gives effect to Section 2(6) H&SWA which imposes a duty on employers to consult with those health and safety representatives with a view to making and maintaining arrangements that will enable effective co-operation, so that health and safety at work can be promoted, developed and monitored.

Appointment of safety representatives, Regulation 3

Safety reps are appointed by the recognised trade union(s). (A trade union is recognised where it negotiates pay and other terms and conditions on behalf of employees, this is known as collective bargaining and is defined under Trade Union and Labour Relations (Consolidation) Act 1992 TULR(C)A, Section 178).

Once a representative has been appointed, the trade union will inform the employer in writing and inform the employer of the group or groups of employees the new rep represents.

Reps can raise general matters affecting the health and safety of employees as a whole (GN 23).

The trade union will also arrange for the person to attend trade union health and safety training (ACOP 36).

Where practicable, representatives should have worked within the relevant company for at least two years or had at least two years' experience doing similar work. Exceptions to this could be, for example, where there is a high turnover of staff (see GN 22).

The appointment ceases when the trade union notifies the employer in writing, the safety rep no longer works in any of the areas where the rep represents groups of employees, or the representative resigns (Regulation 3 (3)).

Functions of safety representatives, Regulation 4

Safety representatives' functions are as follows:

- to represent the employees in consultations with the employer under section 2(4) of H&SWA (which requires every employer to consult safety representatives, with a view to the making and maintenance of arrangements which will enable him and his employees to cooperate effectively in promoting and developing measures to ensure the health and safety at work of the employees, and in checking the effectiveness of such measures)
- investigation of potential hazards and dangerous occurrences and to examine the cause of accidents at the workplace
- investigation of complaints by any employee the rep represents relating to the employee's health, safety or welfare at work
- making representations to management about matters arising from the previous two investigations
- making representations to management on general matters affecting the health, safety or welfare at work of employees in the workplace
- carry out inspections of the workplace under Regs 5, 6, 7
- to represent the employees in any consultation with inspectors from the relevant enforcing authority
- receiving information from Inspectors
- attending safety committee meetings; and
- assist in the promotion, development and maintenance of effective measures designed to safeguard the health and safety of the employees they represent.

Health and safety representatives do not have any legal duties or responsibilities for health and safety beyond those applying to all employees. Such duties and responsibilities clearly rest with management and any persons they appoint for this purpose (GN 44).

Paid Time Away from Normal Work, Regulation 4 (2)

Health and safety representatives should be permitted sufficient paid time away from their normal duties to undertake any of their functions.

Health and safety representatives are also entitled to paid time away from normal duties to undergo any relevant training that is considered as reasonable in all the circumstances (ACOP 4).

In order to fulfil their functions representatives will need to keep abreast with (GN 29):

- legal requirements relating to the health and safety of persons at work, particularly those they directly represent

- particular hazards of the workplace and measures deemed necessary to eliminate/minimise risks deriving from those hazards; and
- the health and safety policy of their employer and also the organisation and arrangements for fulfilling that policy.

No matter what the circumstances, health and safety representatives must obtain their employer's prior approval for paid time away from their normal duties. The actual amount of time agreed by the employer must be adequate for the purpose.

Representatives should, therefore, provide the employer with as much notice as possible, and provide sufficient information to enable a decision to be made as to what may be necessarily required.

Refused Applications, Regulation 11

Where a health and safety representative has been refused the necessary paid time away from their normal duties to attend a training course or to undertake any of their health and safety functions, this can be challenged in an Employment Tribunal.

However, should a representative face such a problem, they should contact their RMT Full-Time Officer in the first instance, as it may be possible to resolve the matter through the agreed procedures.

Where a claim does proceed to the employment tribunal, the tribunal can make a declaration about the right that has been infringed and may award the pay that should have been provided or limited compensation in appropriate circumstances.

Consultation, Regulation 4A

Employers are required to consult health and safety representatives in good time before any decisions are taken that may have health or safety consequences. They should provide representatives with details of what is being proposed, provide an opportunity for them to express their views on the matter, and then take those views into account.

Consultation is required in good time on such matters as:

- the introduction of any measure that may substantially affect the health or safety of employees
- the arrangements for appointing competent people to assist with health and safety and implementing procedures for serious and imminent risk
- the information the employer is required to provide to the employees the safety representatives represent by or under the relevant statutory provisions
- the planning and organisation of any health and safety training provided for employees, including new recruits; and

- the health and safety consequences of the introduction of any new technologies into the workplace.

The Code of Practice on the SRSC Regs states that safety reps should take all reasonably practical steps to keep themselves informed of the legal requirements relating to H&S at work, particularly relating to those employees they directly represent, the particular hazards in their workplace and measures to eliminate those risks and the employer's health and safety policy.

Employer's duty to provide facilities, Regulation 4A(2)

Every employer shall provide such facilities and assistance as safety reps may reasonably require to carry out their functions.

Inspections of the workplace, Regulation 5

Representatives are entitled to carry out inspections of the workplace no less frequently than every three months having given reasonable notice in writing to the employer of their intention to carry out an inspection. Where there has been a significant change in the conditions of work caused by the introduction of new equipment or work processes etc, an inspection can take place prior to the expiry of three months following consultation with the employer.

Where necessary, more frequent workplace inspections can be agreed with the employer.

In relation to safety inspections RMT advise that:

Where possible, a programme of planned workplace inspections should be drawn up and agreed in advance with the employer. Where areas overlap, it may be necessary for the health and safety representatives to agree as to those parts of the workplace each will inspect to avoid duplication.

There are advantages if inspections are carried out jointly with management, not least of which is that it provides you with the opportunity to raise points directly with management and for them to offer any explanations or take immediate direct action to correct identified deficiencies. However, this does not preclude health and safety representatives from carrying out independent inspections where desired or having private discussions with fellow employees.

Checklist Approach

Some form of checklist can be a good idea in providing a structured approach to pre-planned inspections, and act as a reminder to monitor whether previous corrective measures are being maintained, or new procedures are working properly.

However, if using such a checklist, representatives must also remain alert to any other hazards that may exist.

Safe Systems of Work

Serious accidents are often caused by the adoption of an unsafe system of work or by human failure rather than any physical hazards. Working arrangements are also frequently modified for the sake of convenience or to save time. So when carrying out an inspection, representatives should look not only at where the work is done, but also how it is done.

Where a high-risk activity or rapidly changing circumstances occur in a particular area of a workplace, it may be appropriate for more frequent inspections in that sector to be agreed. In the case of high-risk activities, systematic sampling may be a more appropriate method of conducting inspections to ensure that safe systems of work are consistently being applied.

Inspection Report

A form is generally provided on which any unsafe or unhealthy conditions and working practices should be reported, even where the manager accompanies the representative on the inspection. A copy should always be retained in order to check whether problems have been attended to. The manager should notify the representative in writing of the remedial action taken or proposed, with appropriate timescales. Where no action is proposed an explanation for this should also be given.

Inspections Following Accidents etc., Regulation 6

Where there has been a workplace accident, dangerous occurrence, or where a notifiable disease has been contracted and the interests of those they represent might be involved, the safety representatives are entitled to carry out an inspection of the workplace and, for the purposes of determining the cause, any other part of the workplace also. The inspection should only take place if it is safe to carry it out.

The employer should provide reasonable facilities and assistance as the Safety representatives reasonably require.

Provision of Information, Regulation 7

With reasonable notice, safety representatives are entitled to inspect and take copies of any document relevant to the workplace or employees they represent which the employer is required to keep by virtue of any health and safety legislation (except for documents consisting of or relating to the health record of any individual).

In addition, employers are required to make available to health and safety representatives any information within their knowledge that the representatives may need to fulfil their functions. However, employers do not have to provide the representative with information relating to:

- an individual unless the person has consented to it being disclosed
- matters of national security, including any anti-terrorist measures
- any information employers could not disclose without contravening a prohibition imposed by or under an enactment
- information which could compromise some legal action; or
- information that for reasons other than its effect on health and safety or welfare at work would cause substantial injury to the employer's undertaking.

RMT advise that information safety reps are entitled to see should include:

- information regarding plans and performance and any proposed changes that could impact on the health and safety at work of employees
- technical information about hazards to health and safety and precautions necessary to eliminate or minimise them in respect of machines, plant, substances, and systems of work etc. These may be contained within company standards and procedures, manufacturer's instructions, risk assessments, method statements or other forms of documentation
- information regarding accidents, dangerous occurrences, or notifiable industrial diseases, including any related statistical records; and
- other information that is specifically related to matters affecting the health and safety at work of employees. This will include the results of any measurements that have been taken to check the effectiveness of the arrangements for health and safety.

Safety Committees, Regulation 9

Where two or more Safety representatives request the formation of a Safety Committee, the employer is required to establish the Committee within 3 months and following consultation with the Safety representatives concerned together with representatives of the recognised trade union(s) whose members are employed within the relevant workplace.

7. WORKPLACE (HEALTH, SAFETY AND WELFARE) REGULATIONS 1992

<https://www.legislation.gov.uk/ukxi/1992/3004/contents/made>

Workplace health, safety and welfare. Workplace (Health, Safety and Welfare) Regulations 1992. Approved Code of Practice and guidance
<https://www.hse.gov.uk/pubns/priced/l24.pdf>

Introduction

The Workplace (Health Safety & Welfare) Regulations is one of the 'six pack' introduced in 1992 as a result of the European Framework Directive - and these Regs have now been subsumed within national law. The requirements of these regulations replace the relevant provisions of both the 1961 Factories Act and the 1963 Office, Shops & Railway Premises Act previously in force.

The regulations lay down minimum standards for the workplace, working environment and welfare facilities.

Application

These regulations apply to most workplaces, with certain exceptions which include means of transport such as lorries, buses, ships, and trains. However, even where the regulations do not apply, employers still have a general duty under the H&SWA, to ensure, so far as is reasonably practicable, the health, safety and welfare of all their employees.

Temporary Work Sites, Regulation 3

While temporary work sites are covered, welfare facilities such as the provision of toilets need only be provided 'so far as is reasonably practicable'. Railway track maintenance and renewal sites however, are also covered by the Construction (Design and Management) Regulations 2007. These also impose duties on both the client and contractor organisations in respect of providing or making available suitable and sufficient welfare facilities at readily accessible places.

Environmental Standards, Regulation 5

Maintenance

Workplaces and the equipment, machinery and systems required to comply with these regulations should be maintained in an efficient state, in efficient working order and good repair. The same also applies to any equipment, devices or systems to which the regulations apply.

Ventilation, Regulation 6

Effective and suitable provision should ensure enclosed workplaces are ventilated by enough fresh or purified air.

Provision should ensure that any stale air is replaced at a reasonable rate without causing uncomfortable draughts. The HSE state that fresh air supply rate should not normally fall below 5 to 8 litres per second, per occupant (see ACOP, GN 57).

Where ventilation systems are used, the air inlets should not be sited where they could draw in contaminated air. The systems must be regularly cleaned, tested and maintained to ensure they are kept free from anything that could contaminate the air. All air conditioning systems should be filtered and mixed with fresh air to avoid it becoming unhealthy.

Covid-19 and poorly ventilated areas

If a person who has COVID-19 is present in a poorly ventilated room, the amount of virus in the air can build up, increasing the risk of spreading COVID-19.

The virus may also stay in the air for some time after an infected person has left.

The more fresh air that moves through, the quicker any airborne virus will be removed.

See CIBSE (The Chartered Institution of Building Services Engineers) “Emerging from Lockdown” guidance document <https://www.cibse.org/knowledge-research/knowledge-resources/engineering-guidance/emerging-from-lockdown-cibse-covid-19-guidance>

Temperature in indoor workplaces, Regulation 7

During working hours, a reasonable temperature should be maintained inside all buildings.

Sufficient thermometers should be provided to enable employees to ascertain the temperature throughout the workplace, but for this purpose it is not necessary for a thermometer to be provided in each workroom.

As regards thermal insulation, guidance note 74 states that this can be achieved by constructing or refurbishing in accordance with requirements in Building Regulations where necessary, and guidance note 75 explains that excessive effects of sunlight on temperatures should be avoided.

In defining what is reasonable, the supporting Approved Code of Practice (ACOP) states the temperature in workrooms should normally be at least 16C unless it is not reasonably practicable to maintain this temperature e.g. as the room is open to the outside or contains products that have to be kept cold.

However, where much of the work involves severe physical effort, the temperature should be at least 13C.

No definition on what may be considered as reasonable in terms of a maximum temperature is stated within the ACOP, but it is generally accepted to be no more than 30C for normal activity, or 27C where the work involves a high level of physical effort.

Where the temperatures fall outside of this range, the employer should assess the risk to workers' health and safety and take appropriate measures to reduce the risk to as low as reasonably practicable. This may mean supplying portable heating or cooling, or the provision of protective clothing or cold drinks as appropriate. It may also require the system of work to be altered in order to limit the length of time that individual workers are exposed to uncomfortable temperatures.

For more information see TUC learning tool, To Hot, Too cold <https://www.tuc.org.uk/resource/too-hot-too-cold-how-protect-workers-extreme-temperatures-and-fight-climate-change>

Lighting, Regulation 8

Every workplace should have suitable and sufficient light.

As far as reasonably practicable, lighting should be by natural light, and for this purpose, windows and skylights should be kept clean, although they can be shaded to reduce glare and heat.

Stairs should be lit in such a way that shadows are not cast over the main part of the treads, and where necessary local lighting should be provided at individual workstations. Outdoor routes used by pedestrians should be adequately lit after dark.

Emergency lighting should also be provided where persons at work would be especially exposed to danger in the event of a sudden failure of normal lighting.

Cleanliness, Regulation 9

Every workplace and the furniture, furnishings and fittings should be kept sufficiently clean and it should be possible to keep the surfaces of floors, walls and ceilings sufficiently clean. Cleaning and the removal of waste should be carried out as necessary by an effective method. Waste should be stored in suitable receptacles.

The standard of required cleanliness will obviously depend upon the use to which the workroom is put e.g., a higher standard would be required in an area where meals are consumed than where machinery is maintained.

Any hazardous spillages should be cleared up at once. Waste materials not in suitable receptacles should be removed daily, and care should be taken that

methods of cleaning do not expose anyone to health or safety risks, such as those that could arise from the use of cleaning agents.

Space, Regulation 10

Every room where people work should have sufficient floor area, height and unoccupied space for purposes of health safety and welfare.

When empty and discounting any ceiling height over three metres, every room should provide at least 11 cubic metres for each person who normally works in it. However, this may be insufficient if much of the room is taken up with furniture and equipment (ACOP 97).

Basically, every room must have sufficient free space to allow people to move about with ease. Thus, the number of people who can work in any particular room at any one time will depend not only on the size of the room, but also on the layout and contents (ACOP 96).

Points of entry, exit and walking routes need to be kept free from obstructions and be wide enough so as not to restrict safe evacuation in the event of an emergency.

Physical Standards, Workstations and Seating, Regulation 11

Workstations must be suitable for the worker using it and also for the work being carried out. The meaning of suitable includes that (but is not limited to):

- (a) so far as is reasonably practicable, it provides protection from adverse weather;
- (b) it enables any person at the workstation to leave it swiftly or, as appropriate, to be assisted in the event of an emergency; and
- (c) it ensures that any person at the workstation is not likely to slip or fall.

Where a substantial part of the work can be done seated, suitable seating must be provided.

If outdoors, workstations should be protected from adverse weather as far as reasonably practicable.

Floors, Traffic Routes and Escalators/Moving Walkways, Regulations 12 & 19

Floors and the surfaces of traffic routes used either by pedestrians or vehicles should be suitable for their purpose and kept free from obstructions or substances that could cause a person to slip, trip or fall. They should also be free of any holes, slopes, uneven or slippery surfaces that could cause an accident.

Holes, bumps or uneven areas resulting from damage or wear and tear that could cause a person to trip or fall should be made good, but in the meantime adequate precautions should be taken against the risk of accidents by the use of conspicuous markings or barriers for example.

The same also applies to any spillage likely to cause a slipping hazard. Immediate steps should be taken to clean it up, fence it off or cover with absorbent granules.

Sufficient handrails and guards must be provided on staircases and ramps used as traffic routes unless they are likely to cause an obstruction. Escalators and moving walkways must function safely. They must be equipped with any necessary safety devices and fitted with one or more accessible emergency stop controls.

Escalators and moving walkways must function safely, be equipped with necessary safety devices and be fitted with one or more easily identifiable and readily accessible emergency stop controls.

For more information see HSE guide: <https://www.hse.gov.uk/pubns/books/hsg136.htm>

Falls or falling objects, Regulations 13(5), 13(6) and 13(7)

13(5) So far as practicable, all tanks, pits or structures where there is a risk of a person falling into a dangerous substance should be securely covered or fenced.

13(6) Similarly, any traffic route over, across or in such an uncovered tank, pit or structure should be securely fenced to prevent people falling over the edge.

13(7) In this regulation, “dangerous substance” means – (a) any substance likely to scald or burn; (b) any poisonous substance; (c) any corrosive substance; (d) any fume, gas or vapour likely to overcome a person; or (e) any granular or free-flowing solid substance, or any viscous substance which, in any case, is of a nature or quantity which is likely to cause danger to any person.

Windows and Doors, Regulation 14

Every window and transparent surface in a door, gate, wall or partition should, where necessary for reasons of health and safety, be of safety material or protected against breakage. It should also be appropriately marked or incorporate features to make it apparent.

Such precautions are necessary in doors and gates where any part of the transparent surface is at shoulder height or below, and in windows, walls and partitions where any part of the transparent surface is at waist level or below (ACOP 14, 139).

Windows, Skylights and Ventilators Regulations, 15 & 16

Windows, skylights and ventilators should be capable of being opened or closed by a person in a manner that does not expose them to a risk to their health or safety.

Where necessary, window poles or similar equipment should be kept available for this purpose (ACOP 15, 144).

When open, windows, skylights or ventilators should not project into an area where people are likely to collide with them.

Windows and skylights must be designed and constructed so that they can be cleaned safely.

Where the windows above ground level cannot pivot to permit cleaning from the inside, suitable provision needs to be made to ensure safe access from the outside such as the fitting of a suspended cradle or anchorage points for safety harnesses (ACOP 148).

Where ladders are to be used, they should have a firm level surface to stand on. There is no maximum height for using a ladder. However, where a ladder rises 9 metres or more above its base, landing areas or rest platforms should be provided at suitable intervals.

Arrangement of Traffic Routes, Regulation 17

Workplaces must be organised in such a way that pedestrians and vehicles can circulate safely. Traffic routes should be suitable for the people or vehicles using them, and where both pedestrians and vehicles use the same route there should be sufficient separation between them such that they can pass each other safely.

Traffic routes should also be wide enough to allow vehicles to pass oncoming or parked vehicles without leaving the route, passing close to any edge or to anything likely to be hit (ACOP 152).

However, in the case of traffic routes in existence before 1993, where it is not practical to make the route wide enough, passing places, one-way systems, segregation or parking restrictions may need to be considered. Sensible speed limits should be set and clearly displayed on all vehicular routes. Suitable warning signs should indicate potential hazards such as bends or crossings (ACOP 151).

In doorways, tunnels and other restricted areas, vehicles should be separated from pedestrians by a kerb or barrier. Where necessary, separate routes should be provided. At crossing points where pedestrian routes join vehicle routes, there should be adequate visibility and open space for pedestrians. For example, outside a doorway or staircase that joins a vehicle route, there should be an open space of at least one metre from which pedestrians can see along the route in both directions. Where such space cannot be provided, a barrier or fence should be erected to prevent pedestrians walking directly onto the vehicle route.

Loading bays should be provided with at least one exit point from the lower level, or alternatively a refuge should be provided which can be used to avoid being struck or crushed by a vehicle.

Where large vehicles have to reverse, measures for reducing risks to pedestrians should be considered, such as restrictions on where it can take place or employing banksmen to supervise the movement.

Doors and Gates, Regulation 18

Doors and gates must be suitably constructed and fitted with any necessary safety devices to prevent injury while being operated.

The doors and gates that swing in both directions should have a transparent panel unless they are low enough to see over. Powered doors and gates need to have suitable features that prevent people getting trapped. They also need to have a manual operation feature, unless any power failure would cause them to open automatically.

Upward opening doors or gates should be fitted with an effective device to prevent them falling back in a manner likely to cause injury and sliding doors should have a stop or other means to prevent the door coming off the end of the track.

Sanitation provisions, Regulation 20

Toilets

Suitable and sufficient toilets should be provided at readily accessible places. Facilities should be located so they are convenient. They do not have to be within the workplace, but they should, if possible, be within the building (ACOP 21, 190).

The number of toilets should be based upon the maximum number of persons likely to be present in the workplace at any one time. The minimum numbers are as follows, but more may be necessary where, for example breaks are taken at set times (ACOP 197).

Number of men/women	1-5	6-25	26-50	51-75
Number of toilets	1	2	3	4

Alternative arrangements for facilities used only by men.

Number of men	1-15	16-30	31-45	46-60	61-75
Number of toilets	1	2	2	3	3
Number of urinals	1	1	2	2	3

Each toilet should be situated in a separate room or cubicle, with a door that can be secured from the inside. Toilet paper in a holder or dispenser and a coat hook should be provided.

The accommodation containing the toilets should be arranged to provide adequate privacy for the user (ACOP 21, 196). It should also be adequately ventilated and lit, kept clean and tidy, and provide adequate protection from the weather (ACOPI91). Separate rooms should be provided for men and women, except where each convenience is in a separate room, which is capable of being secured from the inside.

Washing Facilities, Regulation 21

Suitable and sufficient washing facilities must be provided in the immediate vicinity of every toilet and changing room required by these regulations. Facilities must include a supply of hot and cold (or warm) water, soap and means of drying.

Showers or baths should be provided where the nature of the work or health reasons make it necessary. Showers that are fed by both hot and cold water should be fitted with a device to prevent users being scalded.

Separate facilities should be provided for men and women, except in a room intended to be used by one person at a time and where the door can be secured from the inside, or where needed to wash only the hands, forearms and face.

Drinking Water, Regulation 22

An adequate supply of drinking water must be provided. Supplies must be readily accessible, and conspicuously marked. Suitable cups or drinking vessels must also be provided unless a drinking fountain is used (which is easy to operate).

The supply should normally be connected to the mains, but so far as reasonably practicable, should not be installed in any toilet area (ACOP 209). Water provided in refillable containers should be suitably enclosed to prevent contamination, and should be refilled at least daily.

Clothing Accommodation, Regulation 23

Employers must provide suitable and sufficient accommodation for a person's own clothes not worn during working hours and special work clothing not taken home. Where needed to avoid risks to health or damage to the clothing, separate accommodation should be provided for clothing worn at work and other clothing.

As far as reasonably practicable, the accommodation should allow or include facilities for drying clothes. If the workroom is unsuitable for this purpose, then accommodation should be provided in another convenient location. The accommodation shall be suitable if it provides security for the clothing.

Changing Facilities, Regulation 24

Suitable and sufficient facilities must be provided for workers to change into special work clothes where it involves more than just the removal of outer clothing. Separate facilities or use should be provided for men and women and arranged to ensure the privacy of the user.

The facilities should be readily accessible so that people can get to them easily from the workplace, and also from any separate eating area (ACOP 221). They should be large enough to accommodate the maximum number of persons likely to be using them at any one time (ACOP 222) and should contain adequate seating

(ACOP 221). They should also contain or communicate directly with clothing accommodation, and showers or baths if provided (ACOP 221).

Facilities for Rest and Meals, Regulation 25

Suitable and sufficient rest facilities must be provided at readily accessible places. This should include facilities for eating meals where persons regularly eat meals at work or food is liable to contamination, including that caused by dust, water etc. Rest rooms and rest areas must be equipped with an adequate number of chairs with backrests and tables for the number of workers likely to use them at any one time.

Eating facilities should include a means for preparing or obtaining a hot drink e.g. kettle or vending machine. Where hot food cannot be obtained either in the workplace or nearby, means for workers to heat their own food should also be provided (ACOP 229). Canteens can be used as rest facilities as long as there is no obligation to buy food.

Eating facilities should be kept clean and a suitable standard of hygiene maintained. Where necessary, measures should be taken to ensure the facilities do not become contaminated by substances brought in on footwear or clothing (ACOP 228).

Suitable facilities for rest conveniently situated in relation to toilets must be provided for any person at work who is a pregnant woman or nursing mother. Where necessary, these facilities should include provision for lying down (ACOP 234).

Disabled Persons, Regulation 25A,

Where necessary, those parts of the workplace that are used or occupied directly by disabled people at work must be organised to specially provide for those people. This includes in particular:

- doors, passageways, and stairs
- toilet and washing facilities
- rest areas
- seating; and
- workstations

Accommodating breastfeeding

Employers are legally required to provide a place for pregnant and breastfeeding mothers to rest and, where necessary, this should include somewhere to lie down.

8. PERSONAL PROTECTIVE EQUIPMENT AT WORK REGULATIONS 1992 (PPE Regs)

<https://www.legislation.gov.uk/ukSI/1992/2966/contents/made>

as amended by PERSONAL PROTECTIVE EQUIPMENT AT WORK REGULATIONS 2022

<https://www.legislation.gov.uk/ukSI/2022/8/contents/made>

Personal protective equipment at work, The Personal Protective Equipment at Work Regulations 1992 (as amended) Guidance on Regulations

<https://www.hse.gov.uk/pubns/priced/l125.pdf>

Personal Protective Equipment means all equipment (including clothing affording protection against the weather) which is intended to be worn or held by a person at work and which protects them against one or more risks to their health and safety, and any addition or accessory designed to meet that objective. It deals with the selection and use of personal protective equipment (PPE) where risks to workers health and safety cannot be controlled by other means.

Application

These regulations apply to all workplaces and work situations covered by H&SWA.

The PPE at Work Regs 2022 provide that any casual workers who are not employed are now covered by the 1992 Regulations. These workers are sometimes referred to as limb (b) workers.

Regulation 3 & 13

The regulations also exclude work activities governed by specific legislation that sets out more detailed requirements for PPE against the particular hazards involved. The activities concerned are governed by the following regulations:

- Control of Asbestos Regulations 2012
- Control of Substances Hazardous to Health Regulations 2002
- Control of Lead at Work Regulations 2002
- Noise at Work Regulations 2005
- Construction (Head Protection) Regulations 1989
- Ionising Radiations Regulations 1999

Interpretations

Personal Protective Equipment, Regulation 2

PPE is any clothing or equipment that is either worn or held by someone at work to protect against risks to their health or safety. Examples include high visibility

jackets, safety boots, gloves, safety harnesses and eye protectors such as goggles. The types of exposure for which PPE may be required include weather conditions such as rain/snow, dust and vibration.

Uniforms issued for the primary purpose of presenting corporate image or ordinary work clothes are not covered by these regulations. Protective clothing for use in food preparation is also not included, as this is provided for the purpose of hygiene. Neither is equipment provided merely for deterrent purposes such as personal alarms.

Provision of PPE, Regulation 4

Employers must ensure suitable PPE is provided to their workers who may be exposed to a risk to their health or safety that cannot be adequately controlled by other means.

PPE should, therefore, always be regarded as a 'last resort' (GN 4(1)–(5)), as it only protects the person wearing it, whereas measures that control the risk at source protect everyone. For example, the wearing of a suitable head covering to prevent hair becoming entangled in machinery is no substitute for having a proper guard on a machine.

To be considered as suitable, PPE must be appropriate for the risk(s) involved, the length of time it has to be worn, and the conditions and characteristics of where the work takes place.

It also needs to take account of the nature of the job and the state of health of each worker concerned. As far as possible it should achieve adequate control of the risk(s) without creating even greater risk e.g., eye protection would not be an appropriate control measure if it impairs visibility vital for the safety of the worker.

The design and manufacture of PPE should comply with European law (as incorporated into UK law) and be capable of fitting the wearer correctly in order to provide effective protection.

Ideally it should be comfortable to wear, but this would have to be a secondary consideration to the level of protection it affords (GN 39).

While in certain circumstances it may be appropriate for PPE to be shared, where necessary for the purpose of hygiene or health, it must be provided on a personal basis.

Suitability and Compatibility of PPE, Regulation 5

Where more than one item of PPE is required to be worn, they must be compatible with each other. For example, where a respirator and safety helmet are required to be worn, it must be possible to wear both correctly without the protection level of either item being compromised.

Assessment of Suitability, Regulation 6

Before choosing any PPE, the employer must make an assessment to determine its suitability for the level of risk it is meant to protect against. The assessment should, therefore, identify the risks to health and safety that are not avoided by other means, and then define the characteristics the PPE must have to be effective in avoiding or reducing those risks. It should also take account of any risks created by the PPE itself, and the compatibility of the equipment with any other PPE that must be worn at the same time.

Those having to use the PPE should always be engaged in the specification and selection process, as they can often help identify problem areas. Their involvement also means there is a greater likelihood of them using the chosen equipment more effectively (GN 58).

In complex cases, the assessment should be recorded (GN 55).

The assessment must be reviewed if there is reason to suspect it is no longer valid or there has been a significant change.

Maintenance of PPE, Regulation 7

Employers are required to ensure that any PPE issued to employees is kept in good repair and cleaned or replaced as appropriate.

In general, equipment should always be examined before use to ensure it is not deficient in any way (GN 61). The responsibility for carrying out maintenance should be set out, together with the details of the procedures to be followed, and their frequency (GN 62).

Manufacturer's maintenance schedules and instructions should normally be followed, and only proper spare parts used (GN 62).

Maintenance and repairs should only ever be undertaken by those trained to do it (GN 64). In the case of equipment that has a fixed or maximum life, it is essential that employees are told what it is and the arrangements for disposal and replacement.

Accommodation, Regulation 8

Appropriate accommodation for PPE when not in use must be provided.

It needs to be adequate to protect the equipment from contamination, loss or damage by, for example, harmful substances, damp or sunlight (GN 66(a)). The accommodation may be simple, such as pegs for safety helmets, or a carrying case for spectacles (GN 67).

However, in the case of more substantial equipment, lockers or other suitable containers may be needed.

Personal Protective Equipment At Work Regulations 1992 (PPE Regs)

Where PPE becomes contaminated during use, the accommodation must be separate from any provided for ordinary clothing. PPE awaiting maintenance or repair must also be kept separate from any that is ready for use (GN 67).

Information, Instruction & Training, Regulation 9

Employers have a duty to provide information, instruction and training that is appropriate, adequate and comprehensible to all their staff who use PPE. This should include the risks that will be avoided or reduced by proper usage, how the equipment should be used and what its limitations are. Also, any actions the users need to take to ensure that the equipment remains in good working order etc.

The extent of the required instruction and training will of course depend on the complexity and performance of the equipment, how often it is used, and the needs of the people being trained (GN 70).

The same considerations also apply regarding the needs for refresher training. Where appropriate, demonstrations in the correct wearing of PPE should be organised at suitable intervals (GN 74).

More specialist training may be needed for staff involved in maintaining, repairing and testing of equipment (GN 69).

Proper Use of PPE, Regulations 10 & 11

Employers must take reasonable steps to ensure that PPE is used correctly, and that any loss or defect can be reported.

Every employee using PPE must use it in accordance with the information, training and instruction given, and report any loss or defect as soon as possible. After use, all reasonable steps should be taken by employees to return equipment to the storage accommodation provided.

Cost of PPE, H&SWA, Section 9

Employers are not permitted to charge any worker for the provision of any personal protective equipment used only at work.

9. MANUAL HANDLING OPERATIONS REGULATIONS 1992

<https://www.legislation.gov.uk/uksi/1992/2793/contents/made>

Manual Handling Operations Regulations 1992

Guidance on Regulations

<https://www.hse.gov.uk/pubns/indg143.pdf>

Introduction

This Regulation implements the minimum health and safety requirements that employers must comply with in relation to any manual handling operation (that is physical lifting, carrying, or moving any load) that could give rise to the risk of injury.

Application, Regulation 7

These regulations apply to all workplaces and work situations covered by H&SWA.

Interpretations, Regulation 2

Load

A load in this context is a discrete moveable object, so it does not include a fixed device such as a gear or signal lever. Neither does it include an implement, tool or machine while being used for its intended purpose (GN 22). However, any materials supported by a hand implement such as a shovel, are covered by the regulations.

Manual Handling Operation

A manual handling operation is any transporting or supporting of a discrete load by hand or by bodily force. This includes the process of actually lifting, putting down, pushing, pulling, carrying or moving of the load.

The aim of the regulations is to prevent injury to any part of the body, not only from the physical effort of transporting or supporting a load, but also any other feature of the load that might cause direct injury such as sharp edges or extremes of temperatures (GN 20). However, hazards from corrosive or toxic substances caused by leakage or spillage are not covered. These hazards come under the Control of Substances Hazardous to Health Regulations (COSHH) (GN 21).

Duties of Employers, Regulation 4(1)

This establishes a clear hierarchy of measures that employers must follow, which are as follows:

- Avoidance of Manual Handling, Regulation 4(1)(a)

As a first principle, employers are required to assess the nature of the task with a view, so far as is reasonably practicable, to eliminating the need for manual handling operations where there is a risk of injury.

This means looking at the handling operation to see if it is necessary, or whether the desired result can be achieved in some other way. For example, can the work process be reorganized so it can be carried out close to where the load is situated to avoid handling? If not, can the operation be automated or mechanised using say, conveyor belts or lift trucks?

- Risk Assessment

Where it is not reasonably practicable to avoid the need for manual handling, an assessment of the risk of injury must be made. The risk assessment must be suitable and sufficient and consider the task, load, working environment and individual capability, including any personal protective equipment that may have to be worn.

Schedule 1 of the Regs sets out in details the matters that must be considered by an employer when assessing manual handling operations.

Task

Some tasks may involve holding or manipulating loads at a distance from the body. This can lead to an awkward posture or body movement such as twisting, stooping, or having to reach up. It could also involve excessive lifting or lowering distances, excessive carrying distances or pushing/pulling of loads.

Load

As well as the weight, the nature of the load needs to be assessed. Some articles may be awkwardly shaped or smooth and, therefore, difficult to grasp. The load could perhaps be unpredictable or unstable e.g., a partly filled container of liquid. It could also be hot, sharp or potentially damaging.

Working Environment

Space constraints can prevent good posture, as can handling of loads while seated. In addition to being a slip, trip or fall hazard, uneven, slippery, or unstable floors increase the risk of injury through sudden and unpredictable stresses. Extremes of temperatures can also affect manual handling. Perspiration may affect grip as will cold if the fingers are numb.

Individual Characteristics, Regulations 4(1)(b)(i) & 4(3)

People vary in size and strength and this must be considered. The assessment needs to identify whether the task requires unusual strength, height etc., and whether it may create a hazard to those who might be pregnant or have a health problem. PPE or clothing could also hinder the individual by affecting their movement or posture.

Reducing the Risk, Regulation 4(1)(b)(ii)

After assessing all the factors, employers must then take appropriate steps to reduce the risk of injury to those employees undertaking any manual handling to the lowest level that is reasonably practicable.

When considering what can be done, the same structured approach used during the assessment should be taken. It should look in turn at the task, the load, the working environment, and individual capability. The emphasis given to each of these factors may depend in part on the nature and circumstances of the manual handling operations (GN 44).

Routine operations carried out in largely unchanging circumstances may lend themselves particularly to improvement of the task and working environment (GN 45). However, where the circumstances are liable to change continually, there may be less scope for such improvements. In these situations, it may be more appropriate to focus on the load. For example, can it be lightened or made easier to handle? (GN 46).

Consideration should be given to the provision of mechanical assistance where this is reasonably practicable (GN 37). Where the task, circumstances or load varies, the provision of effective training may also be particularly required. This should give the employee a clear understanding of why they should avoid or minimize manual handling where possible. Also, how, and why they should make full use of any equipment provided, and the means of adopting a good handling/lifting technique (GN 54).

TUC explain that health and safety representatives and employees should always be invited to play a positive part in the assessment process. Their views can be particularly valuable in identifying manual handling problems and practical solutions to them. They should be involved in any redesign of the system of work and given the opportunity to contribute to the development of good handling practice.

Information About the Load, Regulation 4(1)(b)(iii)

Employers should take appropriate steps to provide information on the weight of each load, and details of the heaviest side of any load whose centre of gravity is not positioned centrally. A general indication can be provided as part of the training process, and where reasonably practicable, more precise information can be given by marking it on the load.

Review, Regulation 4(2)

Any manual handling assessment must be reviewed if there is reason to believe that there has been a significant change in the operations and systems of work adjusted as appropriate. A review of the assessment should also be carried out if a reportable injury is sustained.

It is important that employers keep proper records, including any evidence that may indicate a relationship between ill-health and manual handling, as any pattern may indicate the need to review the risk assessment (GN 56).

Employees Duties, Regulation 5

Employees must make full and proper use of any system of work put in place by the employer in compliance with their duty to either avoid manual handling operations where reasonably practicable, or to take appropriate steps to reduce the risk of injury.

10. WORK AT HEIGHT REGULATIONS 2005

<https://www.legislation.gov.uk/uksi/2005/735/contents>

HSE Working at Height – a brief guide

<https://www.hse.gov.uk/pubns/indg401.pdf>

Introduction

The Work at Height Regulations apply to all work at height where there is risk of a fall that is liable to cause a personal injury. They are relevant to the construction industry as well as to industrial cleaning and maintenance, working on the back of a lorry and erecting bill posters.

The regulations are based around a hierarchy of principles for avoiding and controlling the risks with the aim of reducing workplace injuries.

Application, Regulation 3

The regulations apply to all workplaces and work situations covered by the H&SWA, which includes offshore. They do not, however, apply to the crew of a ship in respect of normal shipboard activities that are unlikely to expose other persons at work to a risk to their safety.

Interpretations, Regulation 2

Work at Height

For the purpose of these regulations ‘work at height’ means work in any place, including a place at or below ground level where, if appropriate control measures are not taken, a person could fall a distance liable to cause personal injury. It also includes access to or egress from such place of work, except by a staircase in a permanent building.

Organisation and Planning, Regulation 4

Employers must ensure that all work at height is properly planned, appropriately supervised, and carried out in a manner which, so far as reasonably practicable, is safe. Such planning should include the selection of work equipment, and any measures or equipment needed for emergencies and rescue.

No work at height should be carried out when the weather conditions may jeopardise the health or safety of anyone involved in the task. In such circumstances, the work in question should be postponed.

Competence, Regulation 5

No person should be permitted to engage in any activity, including planning, organisation and supervision of work in relation to work at height, or any work equipment for use in such work unless they are competent to do so. If being trained in such an activity, they must be supervised by a competent person.

Avoidance of Risks, Regulation 6(2)

Employers have an overriding duty to ensure that no work is carried out at height where there is a reasonably practicable alternative for carrying out the work safely otherwise than at height.

For example, using hierarchy of work principals it may be possible to carry out some or all of the work at or from ground or floor level by reorganising the method of work or by supplying appropriate extension equipment.

Prevention of Falls, Regulations 6(3) and 6(4)

Where work from height is unavoidable, the employer must carry out a risk assessment as required by the Management of Health and Safety at Work Regulations 1999 and take suitable and sufficient measures to prevent, as far as is reasonably practicable, a person falling any distance liable to cause personal injury.

Schedule 1 sets out the requirements for working at height in detail. Such measures should include ensuring that the place of work or means of access/egress;

- is stable and of sufficient strength and rigidity for the purpose for which it is intended to be or is being used
- where applicable, rests on a stable, sufficiently strong surface
- is of sufficient dimension to permit the safe passage of people and the safe use of any plant or materials required to be used and to provide a safe working area having regard to the work to be carried out there
- possesses suitable and sufficient means for preventing a fall
- possesses a surface which has no gap through which a person could fall, or through which any material or object could fall and injure a person
- is so constructed and used, and maintained in such condition as to prevent the risk of slipping or tripping, or any person being caught between it and any adjacent structure
- where it has moving parts, is prevented from moving inadvertently by appropriate devices during work at height. However, where this would mean it was not reasonably practicable for the worker to carry out the work safely (taking account of the demands of the task, tools, machinery and working environment), appropriate equipment must be provided to prevent, as far as reasonably practicable, a fall from occurring.

Mitigation of Consequences, Regulation 6(5)

Where the assessment shows the measures to prevent a fall will not be sufficient to eliminate the risk, the employer must provide sufficient work equipment to both minimise the distance and consequences of any fall. However, where it is not reasonably practicable to minimise the distance, equipment that solely minimises the consequences of any fall must be provided.

Also, additional training and instruction, or other additional suitable and sufficient measures must be taken to prevent, as far as reasonably practicable, a person from falling a distance likely to cause personal injury.

Selection of Work Equipment, Regulation 7

In selecting the most suitable equipment for working at height, employers must give collective protection measures (e.g., guard rails) priority over personal protection measures (e.g. safety harnesses).

They must also take account of factors like the working conditions, the risks to safety of all those at the place where the equipment is to be used, and the duration and frequency of use. In addition, it should have characteristics (including dimensions) which are appropriate to the nature of the work to be carried out, the foreseeable loadings, and allow passage without risk.

Safety reps should consider the full provisions of Reg 7 and Schedule 1 when dealing with issues relating to working at height.

Requirements for Particular Work Equipment, Regulation 8

Employers must ensure that in the case of:

- a guard rail, toe-board, barrier or similar collective means of protection
- a working platform or scaffolding
- nets, airbags or other collective safeguard for arresting falls; or
- a personal fall protection system,

the particular item of work equipment complies with the relevant circumstances and requirements set out in Schedules 2 to 5 of the regulations.

Ladders. (Schedule 6, Reg. 8(e))

Ladders should only be used for work at height where a risk assessment has demonstrated that the use of more suitable work equipment is not justified because of the low risk, and also the short duration of use or existing features on site that cannot be altered.

Ladders must be positioned to ensure stability during use. The surface upon which they rest should be stable, firm, of sufficient strength and of suitable composition to safely support the ladders so that the rungs or steps remain horizontal when any loading is placed upon them.

Those ladders used for access must be long enough to protrude sufficiently above the place of landing to which they provide access unless other measures have been taken to ensure a firm handhold. Where they rise to a distance of 9 metres or more, sufficient safe landing platforms or rest areas should be provided at suitable intervals where reasonably practicable.

Every ladder should be used in such a way that a secure handhold and secure support are always available. Also, that the user can maintain a handhold when carrying a load, unless in the case of a step ladder, the maintenance of a handhold is not practicable when a load is carried, and an assessment has demonstrated that the use of such a ladder is justified because of the low risk and short duration of use.

Safety reps should consider the full provisions of Schedule 6 when dealing with issues relating to working with ladders.

Inspection of Particular Work Equipment, Regulation 12

Where the safety of the work equipment covered by Regulation 8 depends upon how it is installed or assembled, it must not be used following installation or assembly until it has been inspected by a competent person in the place in which it is to be used or, in the case of a mobile working platform, unless it has been inspected on the site within the previous seven days.

Work equipment exposed to conditions that can cause deterioration liable to result in dangerous situations must be inspected at regular intervals. It must also be inspected whenever exceptional conditions liable to jeopardise the safety of the work equipment have occurred to ensure it remains safe, and that any deterioration can be detected and rectified in good time.

The result of all inspections must be recorded and retained until the next inspection takes place. However, in the case of working platforms (including scaffolds, cradles etc.) that are used for construction work from which a person could fall 2 metres or more, the inspection report must comply with Schedule 7 of the regulations and be retained at the site until the construction work is complete. Thereafter it must be kept at the employer's office for a further period of three months.

Fragile Surfaces, Regulation 9

Employers must ensure that no-one under their control goes onto or near a fragile surface unless it is the only reasonably practicable way for the person to carry out the work safely, having regard to the demands of the task, equipment or working environment.

Where it is necessary for someone to work on or near a fragile surface, the employer must ensure so far as reasonably practicable, that suitable and sufficient platforms, coverings, guard rails and the like are provided and used to support or bear the foreseeable loading.

If having done this there is still a risk of a person falling, suitable and sufficient measures to minimise the distance and consequences of such a fall must also be taken.

If there is a possibility of anyone going onto or near a fragile surface, prominent notices warning of the dangers must be provided on the approach to it, but where this is not reasonably practicable, other means of warning must be given.

Falling Objects, Regulation 10

Suitable and sufficient steps must be taken to prevent the fall of any material or object, but where this is not reasonably practicable, suitable and sufficient steps must be taken to prevent someone being struck by any falling material or object which is liable to cause personal injury.

Employers must ensure that that no materials or objects are thrown from a height in circumstances where someone could be injured. Also, that they are stored in such a way as to prevent risk to anyone arising from the collapse, overturning or unintended movement of such materials or objects.

Danger Areas, Regulation 11

Notwithstanding the other requirements of these regulations, employers must ensure that where a workplace contains an area in which, owing to the nature of the work, there is a risk of a person falling a distance or being struck by a falling object that is liable to cause personal injury, such a workplace must be equipped so far as reasonably practicable with devices that prevent unauthorised people from entering the area, and that such an area is also clearly indicated.

General Inspections, Regulation 13

Every employer must so far as reasonably practicable, ensure that the surface and parapet, permanent rail or other such fall protection measure in every place of work at height are checked on each occasion before the place is used.

Duties of Persons at Work, Regulation 14

All workers are required to use any work equipment or safety device provided for work at height in accord with any related training or instruction provided. They must also report to the person in control any activity or defect relating to work at height which they know is likely to endanger their own safety or that of anyone else.

11. PROVISION AND USE OF WORK EQUIPMENT REGULATIONS (PUWER) 1998

<https://www.legislation.gov.uk/ukSI/1998/2306/contents/made>

Health and Safety Executive Safe use of Work Equipment, Provision and Use of Work Equipment Regulations 1998, Approved Code of Practice and Guidance

<https://www.hse.gov.uk/pubns/priced/l22.pdf>

Introduction

The Provision and Use of Work Equipment Regulations (PUWER) were first introduced in 1992. They set out minimum standards in relation to the selection and use of work equipment, but these were later replaced in 1998 with a further set of regulations that also incorporated new requirements concerning mobile work equipment and the inspection of work equipment. They were further amended in 2018 when changes included adding short summaries before regulations to help the reader and direct them to other relevant information and much of the old introduction and background information was removed.

These regulations cannot be considered in isolation from other health and safety legislation. For example, there is some overlap with the Workplace (Health, Safety and Welfare) Regulations 1992 with regard to the risks to pedestrians from moving vehicles within the workplace. Similarly, the Management of Health and Safety at Work Regulations 1999 require risk assessments to be carried out to identify the hazards when using work equipment, evaluating the risks, and deciding the best way in which they can be controlled. Where there are more specific regulations, compliance with these will usually satisfy the requirements of PUWER.

Interpretations, Regulation 2

Work Equipment

The definition of 'work equipment' in the context of these regulations is very wide. It means any machinery, appliance, apparatus, tool or installation for use at work (whether exclusively or not). Consequently, it can cover anything from a simple hand tool to a complex machine, including its control systems.

Lifting equipment is also covered, and duty holders must, therefore, comply with all relevant aspects of PUWER as well as the more specific requirements of the Lifting Operations and Lifting Equipment Regulations 1998 (GN 17(d)).

Commercial road vehicles are also covered by PUWER when used within the workplace, but the requirements of road traffic legislation will take precedence on public roads. However, private cars, structural items such as stairs and fences, or

substances such as water or cement are not classified as work equipment within the meaning of these regulations (GN 21).

Use of Work Equipment

The definition of 'use' is equally wide and includes all activities involving work equipment and includes starting, stopping, programming, setting, transporting, repairing, modifying, maintaining, servicing and cleaning.

Application, Regulation 3

PUWER applies to all workplaces and work situations covered by H&SWA. Where the regulations impose duties upon the employer, such duties can also apply to others who have to any extent control of the work equipment, control of those who supervise or manage it, or control of the way it is used. Obviously, the degree of responsibility depends upon the extent of control that exists. For example, where the equipment is supplied and controlled by another employer, it is this other employer who has the duty to ensure the equipment is safe for the worker to use.

Suitability of work equipment, Regulation 4

Employers must ensure that work equipment is suitable for the work it is provided for, taking account of the location where it is to be used and any risks that may arise. They should also ensure that the equipment is used only for operations and under conditions for which it is suitable.

Suitable in this context means in any respect where it is reasonably foreseeable that it will affect the health or safety of any person. Thus, for example, scissors might be more suitable for cutting bindings than an unprotected knife, as it would reduce the likelihood and severity of any injury. A risk assessment will help in the selection of the work equipment and assess its suitability for the task involved.

Maintenance, Regulation 5

Employers must make sure that work equipment is maintained in efficient working order and in good repair, and if there is a maintenance log, it should be kept up to date.

The degree of maintenance needed will vary from perhaps simple checks on basic equipment to an integrated programme for more complex plant and machines. The aim should always be to prevent the performance of the equipment deteriorating to the extent that it puts people's health or safety at risk (GN70 – 79).

Inspection, Regulation 6

Every employer shall ensure that, where the safety of work equipment depends on the installation conditions, it is inspected after installation and before being put

into service for the first time or after assembly at a new site or in a new location, to ensure that it has been installed correctly and is safe to operate.

Every employer shall ensure that work equipment exposed to conditions causing deterioration which is liable to result in dangerous situations is inspected at suitable intervals; and each time that exceptional circumstances which are liable to jeopardise the safety of the work equipment have occurred, to ensure that health and safety conditions are maintained and that any deterioration can be detected and remedied in good time.

Every employer shall ensure that the result of an inspection made under this regulation is recorded and kept until the next inspection under this regulation is recorded.

Inspections should seek to identify whether the equipment can be operated, adjusted, and maintained safely, and that any defect, damage or wear can be detected and remedied before it results in unacceptable risks (GN 80). Employers must also ensure that no work equipment either leaves their undertaking, or if obtained from another person's undertaking, is not used unless accompanied by physical evidence of the last required inspection.

For large items of equipment this may take the form of a copy of the record itself, but for smaller items a tagging, colour coding or labelling system may be more appropriate (GN 105).

Specific Risks, Regulation 7

If the use of any work equipment is likely to involve a specific risk to health or safety, employers must ensure its use is restricted to those persons authorised to operate it. Any repairs, modification, maintenance, or servicing of the equipment must also be restricted to those who have been adequately trained and specifically designated to undertake these tasks.

Information and Instructions, Regulation 8

Employers must ensure that all those who use work equipment have adequate health and safety information and if appropriate, written instructions relevant to the use of the equipment. They must equally ensure that any employee who has a managerial or supervisory role in the use of the equipment, also has the same information.

The information and instructions must be in a form that is easily understood and should include the conditions and the methods by which the work equipment may be used, and any limitations that might apply. Also, any abnormal situations that may be foreseen, and the action to be taken should they occur.

Training, Regulation 9

For the purposes of health and safety, employers have a duty to make sure that anyone who uses work equipment is adequately trained, particularly in the methods of use, any risks arising from such use and the precautions that need to be taken. They must also ensure that any employee who has a managerial or supervisory role in the use of the equipment receives the same adequate training.

Conformity with European Requirements, Regulation 10

Employers should ensure that if any UK/European Standards or Directives relating to an item of work equipment exists that such equipment is UKCA marked (which replaced CE marking following Brexit) or CE marked (valid for new equipment supplied only up until 31st December 2021) and is accompanied by the relevant certificates or declarations.

Dangerous Parts of Machinery, Regulation 11

Employer must ensure that they have effective control measures to prevent access to any dangerous part of a machine or to stop its movement before any part of a person can enter the danger zone. This can usually be achieved by some form of suitable guard, protection device or appliance that must be maintained in efficient working order, and not give rise to any increased risk to health or safety.

To be considered as suitable, guards and protection devices must not be easily bypassed or disabled. They must also be situated at sufficient distance from the danger zone, but where necessary, without unduly restricting the view of the operating cycle of the machinery.

Specified Hazards, Regulation 12

Employers must have measures in place to prevent people using work equipment being exposed to any risks to their health or safety from certain specified hazards, such as disintegration of the equipment, or premature/unintended discharge of any article, dust, liquid, gas or other substance used, stored or produced in the equipment. Where that is not reasonably practicable, exposure to such risks should be adequately controlled.

High or Very Low Temperature, Regulation 13

Any work equipment, parts of equipment, article or substance used, stored, or produced in the equipment that is at a very high or low temperature must, where necessary have protection to prevent anyone sustaining injury by way of burns, searing or scalding.

Starting and Stop Controls, Regulations 14, 15 & 16

Where appropriate, work equipment should have one or more controls for the purpose of starting it or restarting it after it has been stopped for any reason.

There should also be specific controls to regulate any change in the operating conditions that causes an increase in risks to health or safety e.g., a change in speed, pressure, or power.

It should also have at least one readily accessible stop control that will bring the equipment to a safe condition and in a safe manner. However, except where necessary for reasons of health or safety, the stop control does not have to be instantaneous in its action. It can bring the equipment to rest in sequence or at the end of an operating cycle if needed to avoid other risks.

Where other safeguards in place are not adequate to prevent risk when an irregular event occurs, at least one readily accessible emergency stop control must be provided to bring the equipment to a stop in safe manner, and in a safe condition.

Visibility and Position of Controls, Regulation 17

All controls for work equipment must be clearly visible and identifiable as to what they do. Except where necessary such controls should not be positioned where anyone using them is exposed to risk. Where appropriate and so far as reasonably practicable, neither should the controls be positioned where the operator is then unable to see whether anyone is at risk when the equipment is started.

Control Systems, Regulation 18

So far as is reasonably practicable, all control systems of work equipment must be safe so that, when operated, they do not create any increased risk to health or safety. Similarly, any fault or loss of power supply should not result in any additional or increased risk to health or safety.

Isolation from Power Supply, Regulation 19

Where appropriate, work equipment must be provided with a clearly identifiable and readily accessible means of isolating it from its power supply. Such measures should also ensure that reconnection does not expose a person operating the equipment to any risk to their health or safety.

Stability and Lighting, Regulations 20 & 21

Employers must ensure that work equipment, or any part of the work equipment is stabilised by clamping or other means of fastening where it is necessary to prevent it moving, falling over, collapsing, or overturning during use. The place where work equipment is used needs to be suitably and sufficiently lit for the task involved.

Maintenance Operations, Regulation 22

Employers must take appropriate measures to ensure that work equipment is so constructed or adapted that, so far as is reasonably practicable, maintenance operations can be carried out safely and without risk to health. Where such a

risk does exist, maintenance should only be carried out while the equipment is shut down or other protective measures put in place, such as the provision of temporary guards.

Markings and Warning Devices, Regulations 23 & 24

The work equipment itself must be marked or labelled in a clearly visible manner with any markings that are necessary for reasons of health and safety, for example, safe working speed or maximum load.

Work equipment should also incorporate any warnings or warning devices that are appropriate for reasons of health and safety. A warning would normally be in the form of a notice, and a warning device would typically provide a visible or audible signal. These are often connected to the equipment so they are automatically activated as soon as a hazard exists. Such devices need to be unambiguous, easily perceived and easily understood.

Mobile Work Equipment

Carrying People, Regulation 25

Employers have a duty to ensure that employees are not carried by mobile work equipment unless it is suitable for carrying people and it incorporates safety features so that any risks to their safety, including risks from the wheels or tracks are reduced to as low as is reasonably practicable.

Roll-Over Protection, Regulations 26 & 27

Where there is a risk to an employee from mobile work equipment rolling over whilst they are riding on it, employers must make sure the risk is minimised by stabilising it and ensuring that in the event of an incident, the equipment structure is such that it does no more than fall on its side. Should it roll over further than this, the structure of the equipment should provide sufficient clearance for anyone being carried or have a device that gives comparable protection.

Where there is a risk of anyone falling out and being crushed in the event of a roll-over, a restraining system such as a seat belt should be provided where reasonably practicable.

Employers should ensure that any fork-lift truck fitted with a vertical mast or roll-over protection is adapted or equipped so that the risk to worker's safety from overturning is reduced to as low as reasonably practicable. This may again require consideration to be given to the fitment of a restraining device.

Self-Propelled Work Equipment, Regulation 28

Where self-propelled work equipment while in motion can involve a risk to the safety of persons, it must have the facility to prevent an unauthorised person from starting it. Such equipment must also be fitted with devices for braking and stopping, but where failure of the main braking device gives rise to significant risk, a secondary braking system is also required.

Where the driver's field of vision is inadequate to ensure safety, visibility aids or other suitable devices should be fitted so far as is reasonably practicable. If the work equipment is to be used at night or in dark places, it must be equipped with appropriate lighting for the work involved. Where anything carried or towed by the work equipment constitutes a fire hazard liable to endanger employees, appropriate fire-fighting equipment should be carried unless situated nearby.

Where more than one piece of rail-mounted equipment can travel on the same rails simultaneously, and collision may be foreseen, safety precautions such as buffers or automatic means of preventing contact will be required to control the risks.

Remote-Controlled Self-Propelled Work Equipment, Regulation 29

Where remote-controlled self-propelled work equipment involves a risk to safety while in motion, it must have the ability to stop automatically if it leaves its control range. Where there is a risk of injury due to contact with the moving equipment, it should have features incorporated that protect or warn people in the immediate vicinity.

Drive Shaft, Regulation 30

Where the seizure of the drive shaft between mobile work equipment and its accessories or anything towed is likely to pose a risk to safety, employers must ensure the equipment has a means of preventing such a seizure. If it cannot be avoided, employers should take all possible measures to avoid any adverse effect on the safety of employees.

Where equipment has a drive shaft for conveying power between it and other mobile work equipment and soiling or damage by contact with the ground could occur whilst uncoupled, there must be a system for safeguarding the shaft.

Power Presses, Regulation 31

Application

A power press is a press or press brake for working metal using tools, or proving that is power driven, embodying a flywheel and clutch; see Reg 2. However, the following duties do not apply to certain types of power presses listed within Schedule 2 of the regulations.

Initial Examinations, Regulations, 32(1), (2) & (3)

Employers must ensure that after installation, or after assembly at a new site or in a new location, a power press does not go into service for the first time unless it has been thoroughly examined to ensure it has been correctly installed, any defect remedied and safe to operate.

Any protection device or guard should not be used for the first time on a power press unless it has been thoroughly examined when in position on that power press. This to ensure it is effective for its purpose and any defect has been remedied. The same applies to any part of a closed tool acting as a fixed guard, except that the initial examination can be carried out on any press even if the tool is then to be used on a different press.

Periodical Examinations, Regulation 32(4)

In order that health and safety conditions are maintained, and that any deterioration can be detected and remedied in good time, employers should ensure that power presses and their guards and protection devices are thoroughly examined at least every 12 months in the case of presses with fixed guards only, and at least every 6 months in all other cases.

They should also be thoroughly examined after any exceptional event liable to compromise the safety of power presses, guards or protection devices e.g., following any major repair work, refurbishment or modification.

Inspections, Regulation 33

Employers must not allow any power press to be used after the tools have been either set, re-set or adjusted, except when they are being tried out or in die proving, unless every guard and protection device has been inspected and tested whilst in position on the press.

No power press should be used after the first four hours of any working period unless it has already been inspected and tested. The purpose of this requirement is to ensure that guards and protection devices are inspected and tested by a suitably qualified person once during every day or shift as appropriate.

The inspection must be undertaken by a person appointed by the employer in writing. They must be competent or undergoing training for that purpose and be under the immediate supervision of a competent person.

They must also complete and sign a certificate containing information that identifies every guard and protection device inspected and tested, and the power press to which they are fitted; the date and time of the inspection and test; and a statement that every guard and protection device on the power press is in position and effective for its purpose.

Report, Regulation 34

Where a thorough examination is carried out under Regulation 32, the person undertaking it must, as soon as is practicable, give a written authenticated report of the examination to the employer. Where a defect is found in a power press, its guard or protection device, which in the opinion of the examiner is or could become a danger to workers, they must notify the employer immediately, and send a copy of their written report to the relevant enforcing authority as soon as is practicable.

A person inspecting and testing under Regulation 33 also has a similar duty to immediately notify the employer of any defect in a power press, its guard or protection device, which in their opinion is or could become a danger to workers. In such circumstances they should not sign the certificate.

Record, Regulation 35

All employers must ensure that the information in every report of a thorough examination is kept available for inspection for two years. They must also ensure that the inspection and testing certificate required under Regulation 33 is also available for scrutiny and kept at or near the power press concerned until superseded by a later certificate. After that, it must then be retained for a further six months.

12. LIFTING OPERATIONS AND LIFTING EQUIPMENT REGULATIONS 1998

<https://www.legislation.gov.uk/ukSI/1998/2307/contents>

Safe Use of Lifting Equipment, Lifting Operations and Lifting Equipment Regulations 1998 Approved Code of Practice and guidance

<https://www.hse.gov.uk/pubns/priced/ll13.pdf>

Introduction

The Lifting Operations and Lifting Equipment Regulations (LOLER) apply across all industry sectors and as the HSE explains, LOLER “places duties on people and companies who own, operate or have control over lifting equipment. This includes all businesses and organisations whose employees using lifting equipment, whether owned by them or not.

In most circumstances lifting equipment is also work equipment and therefore the regulations should be considered in conjunction with the Provision and Use of Work Equipment Regulations (PUWER) - that applies to all work equipment, including lifting equipment. In particular, the duty to provide work equipment that is suitable for the task, and information, instructions, and training for those using it. Also, the measures to be taken in relation to dangerous parts of machinery, controls and control systems, and mobile equipment.

Similarly, the Management of Health and Safety at Work Regulations 1998 require risk assessments to be carried out to identify the hazards when using work equipment, evaluating the risks and deciding the best way in which they can be controlled. It could also identify risks not covered by LOLER and in doing so, will direct employers to other relevant legislation. For example, a requirement for the provision of safety harnesses, which are covered by the Personal Protective Equipment at Work Regulations 1992.

Application, Regulation 3

LOLER applies to all workplaces and work situations covered by the H&SWA.

Where the regulations impose duties upon the employer, such duties can also apply to others who have to any extent control of the lifting equipment, control of those who supervise or manage it, or control of the way it is used. Obviously, the degree of responsibility depends upon the extent of the control that exists. For example, where the owner of an office block provides a lift for the use of employees of tenants working in it, it will be his duty to ensure the lift is safe to use, and that it receives periodic examinations and any appropriate inspections.

Interpretations, Regulation 2

Lifting Equipment

'Lifting equipment' is defined as work equipment for lifting or lowering loads and includes its attachments used for anchoring, fixing or supporting it.

The Regulations cover a wide range of equipment, example, cranes, fork-lift trucks, inspection hoists, vehicle tail lifts, passenger lifts, and scissor lifts. The definition also including lifting equipment such as chains, slings, eyebolts etc. However, it does not include escalators, as these are specifically covered by the Workplace (Health, Safety and Welfare) Regulations 1992 (GN 28).

Lifting Operation

A "lifting operation" is one that involves either the lifting or lowering of a load; see Reg 8(2). The term 'load' includes a person or persons (Reg 2).

Strength and Stability of Lifting Equipment, Regulation 4

Employers must ensure that lifting equipment is of adequate strength and stability for each load, with particular attention being paid to the stresses occurring at fixing or mounting points.

Also, that every part of the load, and anything attached to it and used for lifting it is of adequate strength.

When assessing whether the lifting equipment is strong enough for the proposed use, account should be taken not only of the weight of the load, but also any additional factors, such as wind force that may place extra stresses on the lifting equipment (ACOP 3). The same also applies regarding the stability of the equipment.

Where safe use depends upon the use or positioning of stabilising arrangements such as outriggers, the equipment should not be used unless these are in place and operating effectively.

The lifting points on the load should also be assessed to ensure they are of adequate strength for the task. Ordinarily, loads should not be lifted by banding, straps or wrappings that have been provided primarily to keep the load intact, unless they have been designed for this purpose.

Equipment for Lifting People, Regulation 5

Employers should ensure that lifting equipment such as passenger lifts are suitably enclosed to prevent people falling out, being crushed, trapped or being struck by something outside of it. Employers should prevent so far as is reasonably practicable a person using it, while carrying out activities from the carrier, being crushed trapped or struck or falling from the carrier and that there are suitable devices to prevent the risk of a carrier falling and that if such a person is trapped in any carrier they are not thereby exposed to danger and can be freed.

Doors or gates for access/egress should be so designed that the lift cannot operate unless they are closed, and the lift comes to a halt if the doors or gates are opened (GN 139).

In the case of equipment such as mobile elevated work platforms, employers are required to ensure so far as reasonably practicable that persons carrying out activities from it are similarly prevented from falling out, being trapped, crushed, or being struck by something outside of it.

Where the person may fall 2 metres or more, suitable edge protection should be provided. If access doors are fitted, these should not open outwards and a device fitted to prevent inadvertent opening.

Lift cars must have devices to prevent free fall, and other types of lifting equipment should where practicable, be fitted with similar devices or other effective measures taken to prevent falling in the event of failure of the primary means of suspension. For example, multiple ropes with independent anchorage or ropes/chains with a high factor of safety. Where necessary, supplementary measures such as a daily inspection regime by a competent person may also be required (see ACOP/GN142-152).

Employers should ensure that in the event of malfunction of the lifting equipment that people inside are able to call for help, and that a reliable means of rescue is available. In many cases this can be met by the provision of a reliable means of lowering the carrier to a safe position (ACOP 153).

Positioning and Installation of Equipment, Regulation 6

Lifting equipment must be installed or positioned in such a way that the risk of the equipment or load hitting anyone, drifting, going into freefall, or being unintentionally released is reduced by the employer to as low as is reasonably practicable.

The equipment should be positioned or installed so that it minimises the need to lift loads over people (ACOP 159). Equipment that has travelling or slewing motions should be positioned or installed in such a manner that trapping points are prevented. However, where this is not possible, effective measures should be taken to prevent access to the trapping points (ACOP 163).

There must also be suitable means of preventing anyone falling down a shaft or hoist way.

Marking of Equipment, Regulation 7

Lifting equipment must be marked with the safe working load (SWL). Where this can vary with the operating radius or is dependent upon how it is configured, it must be clearly marked on the equipment or adequate information provided to indicate to the user the corresponding safe working load.

Any lifting accessories must also show safe use details and any equipment for lifting people must clearly display the maximum number of people that can be safely carried. Lifting equipment not designed to lift people must be clearly marked to this effect if there is any likelihood that it may be used in error for this purpose.

Organising Lifting Operations, Regulation 8

Employers have a duty to ensure that every lifting operation has been properly planned by a competent person, and that the operation has appropriate supervision and is carried out safely.

This requirement lies at the heart of the regulations, and encompasses many of the previously stated duties, together with relevant requirements of PUWER and the Management Regulations. The planning process should address how any risks identified will be eliminated or adequately controlled. It should ensure that the right equipment is provided, and identify the procedures and responsibilities needed to ensure the lifting operation is carried out safely (GN 214).

Examinations and Inspections, Regulation 9

Employers must ensure that lifting equipment is thoroughly examined before it is put into service and at various points. The level of competence needed depends on the type of equipment and the level of inspection or examination required.

Every employer shall ensure that no lifting equipment leaves his undertaking; or if obtained from the undertaking of another person, is used in his undertaking, unless it is accompanied by physical evidence that the last thorough examination required to be carried out under this regulation has been carried out.

A thorough examination is required as follows:

- When equipment enters service for the first time
- Where safety depends upon correct installation, the examination should be carried out after it has been installed and before being used or put into service for the first time.

This also applies where equipment is assembled on a new site or location, as in the case of tower cranes for example:

- Lifting equipment that is exposed to conditions causing deterioration liable to result in dangerous situations must be examined at least every 12 months or in accord with an examination scheme drawn up by the competent person to ensure that any deterioration can be detected and remedied in good time. In the case of lifting equipment for lifting persons or an accessory for lifting, the inspection must take place at least every 6 months
- In the absence of any examination scheme, lifting equipment should be examined at least once in every 12 months. However, where the equipment

is used for lifting people or as an accessory for lifting, it must be thoroughly examined at least once every 6 months

- After any exceptional circumstances that could affect the safety of the equipment, inspections may also be necessary at appropriate intervals between examinations if any significant risk is identified.

Reports and Defects, Regulation 10

As soon as is practicable after the examination, the competent person should make a written report, which should be given to the employer and any person from whom the equipment was hired or leased. Where a defect is found that is believed could become a danger to people, the competent person must notify the employer immediately and send a copy of their report to the relevant enforcing authority as soon as is practicable.

On being notified of a serious defect, the employer must immediately ensure the equipment is not used until the defect is rectified.

Records, Regulation 11

Employers must keep records of initial examination reports for as long as the equipment is in service. Where the assembly of the equipment on a new site occasioned an examination, the report should be retained until the equipment ceases to be used at that location.

In the case of an accessory for lifting, the initial report must be kept for at least two years. The same period also applies to examination/inspection reports on lifting equipment exposed to conditions causing deterioration and, therefore, subject to periodic examinations/inspections.

Inspection/examination reports should normally be available for inspection at the site where the lifting equipment is being used. They should also be easily accessible to the enforcement authorities should they request to see them.

13. HEALTH AND SAFETY (DISPLAY SCREEN EQUIPMENT) REGULATIONS 1992 (AS AMENDED IN 2002)

<https://www.legislation.gov.uk/ukxi/1992/2792/contents>

Work with display screen equipment Health and Safety (Display Screen Equipment) Regulations 1992 as amended by the Health and Safety (Miscellaneous Amendments) Regulations 2002, Guidance on Regulations

<https://www.hse.gov.uk/pubns/priced/l26.pdf>

Introduction

The Health and Safety (Display Screen Equipment) Regulations, sometimes known as the DSE Regs are intended to improve working conditions in relation to the use of display screen equipment, and in particular the minimisation of any associated risks of visual fatigue and mental stress.

Application

The Display Screen Equipment Regulations generally apply to all work situations covered by the Health and Safety at Work Act 1974, including those circumstances where the user is employed to work at home.

Only Regulations 2, 3 and 7 apply to self-employed people who work at an employer's workstation and whose use of DSE is such that they would be defined as users if they were employees. For the purpose of these regulations, they are referred to as operators.

In the case of temporary workers supplied by an employment agency, the host employer is responsible for compliance with the duties contained in these regulations, apart from Regulation 5 and to a large extent Regulation 6.

(Reg. 1(4))

Interpretations, Regulation 1

Display Screen Equipment

For the purpose of these regulations, display screen equipment is defined as 'any alphanumeric or graphic display screen, regardless of the display process involved', this includes visual display units (VDUs) or Display Screen Equipment (DSE). Therefore, this includes conventional display screens, liquid crystal, plasma or touch-screens.

HSE guidance (see <https://www.hse.gov.uk/pubns/priced/l26.pdf>), Appendix 3, states that work with portable DSE, such as laptops and notebook computers is subject to the DSE Regs if it is in "prolonged use". Employers must select

equipment, risk assess, inform, train and monitor usage in the same way as for stationary DSE. The HSE explain that “The design of portable DSE can include features (such as smaller keyboards or a lack of keyboard/screen separation) which may make it more difficult to achieve a comfortable working posture. Portable DSE is also used in a wider range of environments, some of which may be poorly suited to DSE work”.

However, the Regs do not include display screen equipment on board means of transport, drivers’ cabs or control cabs for vehicles or machinery, or equipment intended mainly for public use. Neither does it include window typewriters, portable systems not in prolonged use, calculators, cash registers or any equipment having small data or measurement display required for direct use of the equipment; see Reg 1(4).

Workstation

Workstation means the actual display screen and associated equipment such as keyboard, printer etc, associated furniture such as chair and desk, and also the immediate environment; see Reg 1(2)(e).

Definition of a DSE User, Regulation 1

A ‘user’ is an employee who habitually uses display screen equipment as a significant part of their normal work. This is largely determined by reference to whether the person concerned normally uses the equipment for continuous spells of an hour or more at a time, on a more or less daily basis. Also, whether the fast transfer of information is an important requirement of the job (GN 15).

However, other factors such as whether the work involves a high dependency on DSE, whether it requires special training or skills, and whether the person has any discretion in using the equipment may also be relevant.

Analysis of Workstations, Regulation 2

Employers must undertake a suitable and sufficient analysis of those workstations used for the purpose of his undertaking by users, or those who are about to become users. This duty is regardless of whether someone else has provided the workstation as could happen in the case of someone working from home.

The assessment must identify any significant health and safety risks to which users are exposed and for those risks to be reduced to as low as is reasonably practicable. As with all risk assessments, it must be reviewed if the employer has reason to believe it is no longer valid or there has been a significant change in the matters to which it relates (GN 45).

Although there is no need to record the assessment if no significant risks are indicated, records are useful for monitoring risk reduction methods where these need to be implemented.

Views of individual users play an essential role when assessing risks as they may reveal problems with vision, posture, fatigue, stress etc. that indicate the need for remedial action. Where a workstation is shared e.g., shift work, the assessment should take account of the different physical etc. attributes of all those who will be sharing.

Requirements for Workstations, Regulation 3

Employers should ensure that any workstations which may be used for the purposes of his undertaking comply with all the requirements that secure the health and safety of the user, taking account of the inherent factors in the work activity that make compliance appropriate for the workstation concerned.

The detailed minimum requirements for workstations are set out in Schedule 1 of the Regulations.

Not all workstations will have the same components. For example, in a control room where a screen is used from a standing position and without reference to documents, a work surface and chair may be unnecessary (GN 56/57).

Similarly, a person with back problems may require a chair with a fixed back rest or a special chair with no back rest. Accordingly, the regulations require compliance to the extent that the components are part of the workstation concerned (GN 55).

Daily Work Routine of Users, Regulation 4

Employers must plan the activities of users so that they have periodic breaks, or their daily work on display screen equipment is periodically interrupted by breaks or changes in activity, so that the time they have to work at the equipment is reduced.

Whenever possible, jobs using DSE should be designed to consist of a mix of screen-based and non-screen-based work to prevent fatigue and to vary visual and mental demands (GN 60).

Where demanding work cannot be broken up in this way, deliberate breaks or pauses must be introduced at regular intervals. They should not be saved up to create one long break or to allow the user to leave work early (GN 61).

Wherever practicable, users should be allowed some discretion as to when to take breaks (GN 62 (d)), as these should be taken when performance is still at a maximum, and before the user starts getting tired (GN 62 (b)).

Short, frequent breaks are more satisfactory than occasional, longer breaks. If possible, breaks should be taken away from the DSE workstation, and allow the user to stand up, move about and/or change posture (GN 62 (c)).

Eyes and Eyesight, Regulation 5

Users or anyone who is to become a user, are entitled on request, to have an appropriate sight test by a competent person (optician or doctor) as soon as practicable after the request has been made. In the case of someone who is not yet a user, the employer should arrange for the test to be carried out before the individual commences any substantial DSE work. Thereafter, users are entitled to sight tests at regular intervals, but only if they want it.

The frequency of such tests will vary between individuals, according to factors such as age (GN 79).

All such eye tests should be at the expense of the user's employer. In the case of agency staff for example, it is the employment agency that should arrange and pay for the test. It is for the employer to decide how such tests should be provided. They can arrange for all their users to visit a particular optician or doctor, or they can allow users to make their own arrangements and reimburse the cost afterwards (GN 85).

Where the result of any sight test shows that spectacles are specifically required for display screen work, the employer is liable for the cost of these, but only of a type and quality adequate for the user's work. However, if a person normally wears spectacles for other purposes and they are also suitable for VDU work, the employer does not have to make any contribution towards the cost (GN 89).

Provision of Training, Regulation 6

Employers should ensure that all users and those about to become users are provided with adequate health and safety training, in addition to the training received to do the work itself.

Working with display screen equipment can lead to musculoskeletal injuries, mental stress and visual fatigue. Training should aim to minimise these risks areas by ensuring that users understand the causes and how such harm may be brought about (GN 94).

Training should cover the correct use of adjustment mechanisms on equipment, and the arrangement of workstation components to facilitate good posture, prevent overreaching and avoid glare and reflections on the screen. It should also emphasise the reasons and need for breaks and changes of activity, and the organisational arrangements by which users can alert the employer to ill health symptoms or problems with workstations (GN 94).

Health and safety training should also be provided whenever the organisation of any workstation is substantially modified. (GN 93). This duty additionally applies to any agency workers temporarily employed by the undertaking.

Provision of Information, Regulation 7

In addition to the training itself, employers have a duty to provide adequate information about every health and safety aspect of the person's workstation, including reminders of the measures for reducing the risks. It should also specifically cover information about the arrangements for breaks and changes of activity, and for eye tests.

The information can be provided in any format, either in writing or by verbal briefings (GN 98). However, the duty on the employer to provide information about the arrangements for breaks and changes of activity does not apply to operators (self-employed), and information on the arrangements for eye tests does not apply to either non-employees (agency staff) or operators.

14. HEALTH AND SAFETY (FIRST AID) REGULATIONS 1981

<https://www.legislation.gov.uk/ukSI/1981/917/regulation/3/made>

First aid at work, The Health and Safety (First-Aid) Regulations 1981 Guidance on Regulations

<https://www.hse.gov.uk/pubns/priced/l174.pdf>

Introduction

The First-Aid Regulations seek to ensure that employers make appropriate provision for any employee who may be injured or becomes ill at work. The regulations are accompanied by guidance (L74) that provides a framework for assessing and establishing first-aid needs for differing types of industries and activities in both large and small places of work.

Application

These regulations apply to all workplaces and work situations covered by the Health and Safety at Work Act 1974, except those situations covered by the statutory provisions set out in Reg 7 such as the Diving Operations at Work Regulations 1981.

However, they impose no obligation on employers to make first-aid provision for non-employees; see Regs 3-5.

Interpretations, Regulation 2

First-Aid

First aid has two important functions. The first function is to give treatment to preserve life in the event of injury or illness and to prevent or minimise further deterioration until medical help arrives. The second is the treatment of minor injuries that would otherwise remain untreated, or do not require the attention of a medical practitioner or nurse. It does not however, include administering tablets or medicines to treat illness.

Employers have a legal duty to make arrangements to ensure their employees receive immediate attention if they are injured or taken ill at work. It does not matter whether an injury or illness is caused by the work people do. It is important that people at work receive immediate attention and that an ambulance is called in serious cases (GN 2).

First-Aid Provision, Regulation 3

Duties of Employer

Employers must provide or ensure the provision of adequate and appropriate

equipment or facilities to enable first-aid to be rendered to their employees should they be injured or become ill at work.

They must also provide or ensure the provision of adequate and appropriate numbers of suitable persons for rendering first aid. Such persons must hold a valid certificate of competence in first aid at work, issued by an organisation whose training and qualifications are approved by the HSE. Special additional training may also be necessary to cover less common risks specific to the particular workplace.

However, where such a person is absent in temporary and exceptional circumstances, or an assessment identifies a comparatively low risk to health and safety, it would be adequate and appropriate if the employer appointed a person to take charge of the first-aid arrangements, including looking after the equipment and facilities and calling the emergency services when required. An appointed person does not require any special qualifications, although an employer may consider it advisable for them to receive basic training in emergency first-aid.

Assessment

To establish how much first-aid provision is needed, employers will need to make an assessment appropriate to the circumstances of their workplace. Although there is no requirement for the assessment to be formal or written, it may nevertheless be useful for the results to be recorded (GN 4 – 11).

In making the assessment, consideration should be given to the following factors:

- *Size of the workforce:* Generally, the larger the number of employees on site at any one time, the more first-aid provision is needed. However, this should not be the sole determining factor.
- *Workplace hazards and risks:* Information from risk assessments can help the employer calculate the most appropriate type, quantity and location of first-aid facilities and personnel.

Previous accident history is also a good indicator.

- *Nature and distribution of the workforce:* The size of the premises can affect how quickly employees can access first-aid facilities. The particular needs of employees potentially at greater risk such as trainees and people with disabilities should be addressed both as a group and individually.
- *Remoteness of the site:* Where the place of work is remote from emergency medical services, injuries may need to be managed on site for a longer period unless special arrangements are in place to ensure appropriate transport is available.
- *Travelling, remote and lone workers:* Lone workers may need some form of remote monitoring or communication system to summon help in an emergency. Where the work activity necessitates employees being constantly

mobile or travelling long distances, the assessment should determine whether personal first-aid kits should be carried.

- *Shared or multi-occupied sites:* Employers can agree for one employer to take responsibility for first-aid provision. In these cases, a full exchange of information about the risks and hazards involved should ensure that the shared provision is suitable and sufficient.
- *Leave and other absences of first aid personnel:* Employers should ensure there is adequate first-aid cover throughout the times that people are at work. They will need, therefore, to make provision for shift working as well as when first-aid personnel may be absent due to leave or sickness etc.

Facilities and Equipment

The assessment will help determine the level of first-aid materials, equipment and facilities that needs to be available to employees at all relevant times. Employers should provide at each worksite at least one first-aid container supplied with enough first-aid facilities suitable for the circumstances (GN 35-46).

First-aid containers should be marked with a white cross on a green background and located in an easily accessible place. The contents should be examined frequently, and any items showing signs of deterioration or past their expiry date should be replaced. Containers should also be restocked as soon as possible after use. As a guide, where work activities involve low hazards, a minimum stock of first-aid items might be:

- a leaflet giving general guidance on first aid (for example, HSE's leaflet Basic advice on first aid at work)
- 20 individually wrapped sterile plasters (assorted sizes), appropriate to the type of work (hypoallergenic plasters can be provided if necessary);
- two sterile eye pads;
- two individually wrapped triangular bandages, preferably sterile;
- six safety pins;
- two large, sterile, individually wrapped unmedicated wound dressings;
- six medium-sized sterile individually wrapped unmedicated wound dressings;
- at least three pairs of disposable gloves

Where an assessment identifies the need for a first-aid room, such as may be necessary in a large high-risk undertaking, the room should be fully accessible to stretchers and other equipment clearly sign-posted.

Provision of Personnel

The findings of the first-aid needs assessment will help the employer decide how many first-aiders are required. There are no standard rules on exact numbers as employers need to take into account the circumstances of their workplace (GN 52-55).

After completing the checklist in Table 1, the flow chart in Appendix 3 of HSE guidance on the regs serves as a general guide on how many first-aiders or appointed persons might be needed. The numbers quoted in Appendix 3 are suggestions only. The employer should take into account all relevant information to make a valid judgement.

Information, Regulation 4

Employers must inform their employees about the arrangements they have made for the provision of first aid, including the location of equipment, facilities and personnel. A simple way of doing this is by displaying first-aid notices containing the relevant information.

15. REGULATORY REFORM (FIRE SAFETY) ORDER 2005

<https://www.legislation.gov.uk/uksi/2005/1541/contents>

Introduction

These fire laws came into effect in England and Wales in 2006. They repealed the Fire Precautions Act 1971 and over 1,000 other pieces of legislation.

Scotland and Northern Ireland have devolved responsibility for fire safety legislation and have their own laws:

The Fire Scotland Act 2006 <https://www.legislation.gov.uk/ssi/2006/456/contents/made>

The Fire and Rescue Services (Northern Ireland) Order 2006

<https://www.legislation.gov.uk/nisi/2006/1254/contents>

For ease of presentation, only references to the Regulatory Reform Order relating to England and Wales are quoted.

Application, Articles 2 and 6

The Reform Order applies to all non-domestic premises and workplaces, including any corridor, staircase, road, or other place used as a means of access to or egress from a place of work. Also, where facilities are provided for use in connection with a place of work.

However, it does not apply to offshore installations, a ship in respect of the crew's normal shipboard activities, or to a locomotive, rolling stock or trailer used as a means of transport.

Neither does it apply to a road vehicle for which a Vehicle Excise Licence is in force, nor a vehicle specifically exempted from the requirement for such a Licence.

Responsible Person, Articles 3 and 22

The duty of compliance with the legal requirements rests with whoever is responsible for the control of the premises. In the workplace this will normally be the employer, but it may also involve another person if they have control over any part of the premises e.g., the owner of the building or the manager of a retail unit on a station concourse. Wherever there is more than one responsible person, they must take all reasonable steps to co-operate and co-ordinate with each other, and to inform each other of the risks to any persons arising out of the conduct of their own undertaking.

Meaning of “general fire precautions”, Article 4

For the purposes of this Reform Order ‘general fire precautions’ should be interpreted to mean:

- (a) measures in relation to the means for detecting fire on the premises and giving warning in case of fire on the premises
- (b) measures to reduce the risk of fire on the premises and the risk of the spread of fire on the premises
- (c) measures in relation to the arrangements for action to be taken in the event of fire on the premises, including the instruction and training of employees and mitigating the effects of the fire
- (d) measures in relation to the means of escape from the premises
- (e) measures for securing that, at all material times, the means of escape can be safely and effectively used; and
- (f) measures in relation to the means for fighting fires on the premises.

However, it does not include any special measures that are required to prevent or reduce the likelihood of fire arising from any specific work process, or to reduce its intensity.

General Fire Precautions, Article 8

The responsible person must take such general fire precautions as will ensure, so far as reasonably practicable, the safety of any of his employees. Also, such general fire precautions as may reasonably be required to ensure the premises are safe for any other persons who may be at risk.

Risk Assessment, Article 9(1)

The responsible person must make a suitable and sufficient assessment of the risks to which any persons are exposed with a view to identifying the general fire precautions that need to be taken.

Dangerous Substances (Flammable or Explosive), Article 9(2) Risk Assessment, Elimination or Reduction of Risks

Where a dangerous substance is present or is liable to be present in or on the premises, the risk assessment must include consideration of the matters as below (as set out in Part I of Schedule 1). Where a dangerous substance is present in or on the premises, the responsible person must, so far as reasonably practicable, replace the dangerous substance or the use of it with a substance or process which either eliminates or reduces the risk to people arising from the presence of the substance.

Part I, Schedule 1:

- (a) the hazardous properties of the substance
- (b) safety information provided by the supplier, including that contained in any safety data sheet

- (c) the circumstances of the work, including:
 - the amount of the substance used
 - the combined risk if more than one substance is used
 - the possible interactions between the substances used and the associated special, technical, and organisational measures
 - the arrangements for the safe handling, storage, and transport of dangerous substances, and of waste containing dangerous substances
- (d) any activities such as maintenance, where there is potential for a high level of risk
- (e) the effect of any measures which have been or will be taken in relation to fire safety requirements
- (f) the likelihood that an explosive atmosphere will occur and its persistence;
- (g) the likelihood that ignition sources, including electrostatic discharges, will be present and become active
- (h) the scale of the anticipated effects
- (i) any places which are, or can be connected via openings to places in which explosive atmospheres may occur; and
- (j) such additional information as the responsible person may need to complete the assessment.

Measures to be taken in respect of dangerous substance, Schedule I, Part 4

Where it is not reasonably practicable to eliminate the risk, measures must be applied consistent with the risk assessment and appropriate to the nature of the activity or operation which, so far as reasonably practicable to control the risk of fire and mitigate the detrimental effects of a fire, including those measures listed in Part 4 of Schedule I of the Reform Order.

Risk Assessment, Article 9(3)

This assessment must be reviewed on a regular basis to keep it up to date, and particularly if there is reason to suspect it is no longer valid or there has been significant change in the matters to which it relates, including when the premises or organisation of the work undergo significant changes, extensions, or conversions.

Risk Assessment, Articles 9(4) and 9(5)

Young people (those aged under 18) must not be employed unless the assessment specifically takes account of their inexperience, lack of risk awareness and immaturity. Also, the type and use of work equipment and the way it is handled, the organisation of the processes and activities, and the extent of the safety training to be provided.

Risk Assessment, Articles 9(6) and 9(7)

Where more than five people are employed, the responsible person must as soon as practicable after the assessment has been made or reviewed, record the significant findings which must include any group of persons identified as being especially at risk, and the measures which have been or will be taken in relation to the fire safety requirements.

Risk Assessment, Article 9(8)

No new work activity involving a dangerous substance may commence unless a risk assessment has been made, and the measures identified for the elimination or reduction of risk have been implemented.

Principles of Prevention, Article 10 and Schedule 1 Part 3

Where any preventative or protective measures are to be implemented, the following principles should be applied:

- (a) avoiding risks
- (b) evaluating the risks that cannot be avoided
- (c) combating the risks at source
- (d) adapting to technical progress
- (e) replacing the dangerous by the non-dangerous or less dangerous
- (f) developing a coherent overall prevention policy which covers technology, organisation of work and the influence of factors relating to the working environment
- (g) giving collective protective measures priority over individual protective measures; and
- (h) giving appropriate instructions to employees.

Fire Safety Arrangements, Article 11

Arrangements appropriate to the size of the undertaking and nature of the activities must be made and implemented for the effective planning, organisation, control, monitoring and review of the preventative and protective measures. These arrangements must be recorded where the responsible person employs five or more people, a licence under an enactment is in force in relation to the premises or an alterations notice requiring a record to be made of those arrangements is in force in relation to the premises.

Elimination or reduction of risks from dangerous substances, Article 12

Risks from dangerous substances (explosive, oxidising, extremely flammable, highly flammable, flammable) must be eliminated or reduced as far as is reasonably practicable.

The responsible person must arrange for the safe handling, storage and transport of dangerous substances, and any waste containing dangerous substances. Any conditions necessary for ensuring the elimination or reduction of risk must also be maintained.

Fire Fighting and Fire Detection, Article 13

Where necessary for the safety of people, the responsible person must ensure that the premises are equipped with suitable firefighting equipment, fire detectors and alarms, to the extent that is appropriate taking account of the dimensions and use of the premises, the physical and chemical properties of the substances likely to be present and the maximum number of people who may be present at any one time. They must also ensure that any non-automatic fire-fighting equipment is easily accessible, simple to use and indicated by signs.

The responsible person must, where necessary also:

- (a) take measures for firefighting in the premises, adapted to the nature of the activities carried on there, and the size of the undertaking and of the premises concerned
- (b) nominate competent persons who have sufficient training and experience or knowledge and other qualities to enable them to properly implement those measures
- (c) ensure that the number of such persons, their training and equipment available to them are adequate considering the size of, and the specific hazards involved in the premises concerned; and
- (d) arrange any necessary contacts with external emergency services, particularly as regards firefighting, rescue work, first aid and emergency medical care.

Emergency Routes and Exits, Article 14

Where necessary, the responsible person must ensure that routes to emergency exits from premises and the exits themselves are always kept clear. The following requirements must also be complied with:

- (a) emergency routes and exits must lead as directly as possible to a place of safety
- (b) in the event of danger, it must be possible for people to evacuate the premises as quickly and safely as possible
- (c) the number, distribution and dimensions of emergency routes and exits must be adequate having regard to the use, equipment and dimensions of the premises and the maximum number of persons who may be present there at any one time
- (d) emergency doors must open in the direction of escape
- (e) sliding or revolving doors must not be used for exits specifically intended as emergency exits

- (f) emergency doors must not be so locked or fastened that they cannot be easily and immediately opened by any person who may need to use them in an emergency
- (g) emergency routes and exits must be indicated by signs; and
- (h) emergency routes and exits requiring illumination must be provided with emergency lighting of adequate intensity in the case of failure of the normal lighting.

Procedures for Serious and Imminent Danger, Article 15

The responsible person must have suitable procedures to be followed in the event of serious or imminent danger to employees, nominate sufficient competent people to assist in the evacuation of the premises and ensure that no-one is permitted access to any area of the workplace to which restricted access is necessary for reasons of safety, unless they have received adequate safety instruction.

The procedures must include:

- a requirement that those exposed to serious and imminent danger are informed of the nature of the hazard and the steps to be taken to protect them from it
- details of when and how the procedures are to be activated so that people can stop work and proceed in good time to a place of safety and the method by which the emergency procedures will be brought to the attention of all concerned
- a requirement that those exposed to serious and imminent danger are prevented from returning to work where this danger still exists.

Additional Emergency Measures, Article 16

Unless the quantity of each dangerous substance in or on the premises creates only a slight risk to people, and the measures already in place are sufficient to control that risk, the responsible person must ensure that:

- (a) information on emergency arrangements including details of relevant work hazards, escape procedures and facilities etc are displayed at the premises and made available to relevant accident and emergency services
- (b) where necessary, escape facilities are provided and maintained, and visual or audible warnings are given before any explosion condition is reached
- (c) immediately upon any accident, incident or emergency related to the presence of a dangerous substance:
 - suitable warning and communications systems are established to enable an appropriate response to be made
 - steps are taken to mitigate the effects of the fire, restore the situation to normal, and inform all those people who may be affected

- only those persons who are essential for the carrying out of repairs and other necessary work are permitted in the affected area; and
- they are provided with appropriate PPE and any necessary specialised equipment and plant to be used until the situation is restored to normal.

Maintenance System, Articles 17 and 38

The premises and any facilities, equipment and devices provided as part of the general fire precautions, including that provided for the use by or protection of fire-fighters must be subject to a suitable system of maintenance which will keep them in an efficient state, in efficient working order and in good repair.

Where the premises form part of a building, the responsible person must decide with the occupier or owner of any other premises forming part of that building to ensure that the maintenance regime is fully carried out.

Safety Assistance, Article 18

The responsible person must appoint one or more competent people with sufficient experience or knowledge and other qualities to assist them in undertaking the preventative and protective measures. Wherever possible, the responsible person should look to appoint such persons from within the existing workforce rather than from an outside agency or consultancy.

The number of competent people appointed, the time available for them to fulfil their functions and both the means and information at their disposal must be adequate having regard to the size of the premises, the risks to which people are exposed, and the distribution of those risks throughout the premises.

Where more than one person is appointed, the responsible person must make arrangements for ensuring adequate co-operation between them.

Information to employees, Article 19

The responsible person must provide employees with comprehensible and relevant information on:

- the risks identified by the risk assessment, including details of any dangerous substances in or on the premises
- information as to the preventative and protective measures being taken to control the risks
- emergency procedures in case of serious and imminent danger
- the identity of those persons nominated to assist with firefighting and any evacuation.

Employers from Outside Undertakings, Article 20

Such information must also be provided to the employer of any employees from an outside undertaking. In addition, the responsible person must take all reasonable steps to ensure that the information is received by those employees.

Training, Article 21

The responsible person must ensure employees are provided with adequate safety training:

- on recruitment i.e., induction courses
- following any change of job or responsibilities
- following any change to the system of work
- upon introduction of new technology; and
- upon significant modification of equipment

The training must include suitable and sufficient instruction and training on the appropriate precautions and actions to be taken by the employee to provide for both their own and others' safety. Appropriate refresher training should be given and where necessary take account of any changes in circumstances.

All training should be during normal working hours, but if this is not possible, it must be looked on as an extension to the time worked.

General Duties of Employees at work, Article 23

All employees have a general duty to:

- take reasonable care for their own safety and that of any other person who may be affected by their acts or omissions
- co-operate with their employer so far as is necessary to enable the employer to comply with any duty or requirement imposed by the Reform Order
- bring to the notice of their employer or competent person any shortcoming in the employer's safety arrangements
- bring to the notice of their employer any situation the employee believes constitutes a serious and immediate danger.

Alterations Notices, Article 29

Where the enforcing authority is of the opinion that the premises constitute a serious risk to people, or could constitute such a risk if a change is made to them or the use to which they are put, a notice may be served on the responsible person requiring them to notify the authority of any specified changes which may result in a significant increase in risk before they are made.

The specified changes may be:

- a change to the premises or use of the premises
- a change to the services, fittings, or equipment in or on the premises
- an increase in the quantities of dangerous substances which are present in or on the premises.

The alterations notice may also include a requirement for the responsible person to send the enforcing authority a copy of the risk assessment, and a summary of the proposed changes to the existing general fire precautions before they are made.

Sub-Surface Railway Stations

At railway stations where the platforms are situated mainly below ground level, fire precautionary measures over and above the requirements of this Reform Order may be needed. The additional standards that must be met are set out in the separate

Fire Precautions (Sub-Surface Railway Stations) Regulations 2009

<https://www.legislation.gov.uk/ukSI/2009/782/contents/made>

16. CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS (COSHH) 2002

<https://www.legislation.gov.uk/ukxi/2002/2677/contents/made>

HSE Control of Substances Hazardous to Health Regulations 2002 (as amended), Approved Code of Practice and guidance

<https://www.hse.gov.uk/pubns/priced/l15.pdf>

Introduction

The Control of Substances Hazardous to Health Regulations (COSHH) 2002 control the risks from harmful chemicals and other dangerous substances including biological agents.

Many substances present in the workplace have the potential to damage health. They may be used as part of or created by the work activity, or they may be naturally present where the work takes place. The aim of COSHH is to ensure that exposure to these harmful substances that arise out of, or in connection with, work are avoided or controlled.

Application

COSHH applies to all workplaces and work-situations covered by the Health and Safety at Work Act 1974. However, it does not apply to the following type of substances or circumstances:

- Lead or asbestos as they are covered by their own separate legislation.
- Any substance which is only hazardous by virtue of its explosive, flammable, or radioactive properties, or solely because the substance is at high pressure or has a high or low temperature.
- Substances administered as part of any medical treatment, or organisms which do not arise out of or in connection with work e.g., respiratory infections caught incidentally from fellow employees.

Employers can include contractors, sub-contractors and self-employed persons. Where the regulations place duties on an employer in respect of their employees, there is also a like duty, so far as is reasonably practicable, in respect of any other person, who may be affected by the work activity.

However, certain requirements do not apply to non-employees. There is no duty for employers to provide them with health surveillance. Neither do they have to monitor their exposure, provide them with information and training or take account of them within emergency plans unless they are on the premises where the work is being carried out (Regulation 3).

Interpretations, Regulation 2

Substance

For the purpose of these regulations, a substance means a natural or artificial substance whether in solid or liquid form or in the form of a gas or vapour (including micro-organisms).

It can be natural or artificial and take the form of a solid, liquid, gas or vapour. It can include, therefore, dust and fumes as well as chemicals. It can also take the form of biological agents such as those that can cause legionnaires disease or leptospirosis, and blood borne viruses such as HIV or hepatitis and micro-organisms that can cause infections, this includes the virus that causes Covid-19, SARS-Cov-2 (see HSE advice on COSHH in relation to Covid-19).

Workplace Exposure Limits (WELs), Regulation 2

Reg 2 defines that 'workplace exposure limits' for a substance hazardous to health means the exposure limit approved by HSE for that substance in relation to the specified reference period when calculated by a method approved by HSE, as contained in HSE publication "EH/40 Workplace Exposure Limits 2005" as updated from time to time.

Full details of all established WELs can be found in

HSE document EH40 <https://www.hse.gov.uk/toolbox/harmful/exposure.htm>

Prohibitions Relating to Certain Substances, Regulation 4

Certain substances that are hazardous to health are prohibited for certain uses. For example, sand or other substances containing free silica are prohibited for use as an abrasive for blasting articles in any blasting apparatus. A full list of the substances and extent to which they are prohibited can be found in Schedule 2 of the regulations.

Risk Assessment, Regulation 6

Employers must not allow any work activity liable to cause employees to be exposed to a substance hazardous to health unless there has been a suitable and sufficient assessment of the risks to health created by the work and taken the steps necessary to prevent or adequately control exposure. The significant findings of the risk assessment, including the preventative or protective measures required must be recorded as soon as is practicable where the employer employs five or more employees.

The risk assessment must be reviewed whenever there is reason to believe it is no longer valid, such as may happen when the method of work is altered, there is a change to the properties of the substance, or the results of any health monitoring show it to be necessary.

The risk assessment must take into consideration the following –

- the hazardous properties of the substance
- information the supplier has provided on health effects, including the content of any relevant safety data sheet
- the work activity, including the amount of substance involved
- the level, type, and duration of exposure
- any potential for a high level of exposure e.g. during maintenance
- any relevant WEL or similar occupational exposure limit
- the effect of preventative and control measures
- the results of exposure monitoring and any health surveillance results
- where the work involves exposure to more than one hazardous substance, the risk presented by the combined exposure; and
- the approved classification of any biological agent, any other relevant information.

Prevention or Control of Exposure

The employer's main objective must be to prevent exposure to hazardous substances by measures other than the use of personal protective equipment. This might be achieved by changing the method of work to eliminate the use or production of the hazardous substance, or by substituting the substance with one that, by the way it is used, presents no risk to health.

Where it is not reasonably practicable to prevent exposure to a hazardous substance, the employer should apply adequate controls that will reduce the level of exposure and present less risk to the health of employees. Control of exposure to substances hazardous to health will only be considered as adequate provided that –

- the principles of good practice are applied
- workplace exposure levels are not exceeded; and
- exposure to substances that can cause occupational asthma, cancer or damage to genes that can be passed from one generation to another is reduced to as low as reasonably practicable.

Control Measures, Regulation 7

Every employer must ensure that the exposure of his employees to substances hazardous to health is either prevented or, where this is not reasonably practicable, adequately controlled.

Substitution shall be by the employer avoiding as far as reasonable practicable, the use of a substance hazardous to health with a substance that either eliminates or reduces the risk to the health of his employees.

Where it is not reasonably practicable to prevent exposure to a substance hazardous to health, the employer shall comply with his duty to control by applying protection measures appropriate to the activity and consistent with the risk assessment, including in order of priority:

- The design and use of appropriate work processes, systems and engineering controls and the provision and use of suitable work equipment materials
- The control of exposure at source, including adequate ventilation systems and appropriate organisation methods; and
- Where adequate control of exposure cannot be achieved by other means, the provision of suitable PPE in addition to the bullet points above.

These measures shall include making arrangements for the safe handling, storage and transport of substances hazardous to health, the adoption of suitable maintenance procedures; reducing to the minimum required for the work concerned the number of employees subject to exposure, the level and duration of exposure and the quantity of substances hazardous to health present at the workplace. It is also necessary to control the working environment, including appropriate general ventilation, and provide appropriate hygiene measures including adequate washing facilities.

Carcinogenic substances

Where it is not reasonably practicable to prevent exposure to a carcinogen, the employer shall in addition to the above enclose the process and handling systems, prohibit eating, drinking and smoking in areas that may be contaminated by carcinogens; clean floors, walls and other surfaces at regular intervals, designate those areas and installations which may be contaminated by carcinogens, use suitable and sufficient warning signs and store, handle and dispose of carcinogens safely.

Biological agents

Where it is not reasonably practicable to prevent exposure to a biological agent, the employer shall in addition to the bullet points above display suitable and sufficient warning signs, including the biohazard sign (see Part IV of Schedule 3 <https://www.hse.gov.uk/pubns/priced/l5.pdf>); specify appropriate decontamination and disinfection procedures; put in place means for the safe collection, storage and disposal of contaminated waste, test for the presence of biological agents used at work, specify procedures for working with, and transporting at the workplace, a biological agent; make available effective vaccines for those employees who are not already immune to the biological agent to which they are exposed or are liable to be exposed; institute hygiene measures compatible with the aim of preventing or reducing the accidental transfer or release of a biological agent from the workplace, including the provision of appropriate and adequate washing and toilet facilities, and where appropriate, the prohibition of eating, drinking, smoking and the application of cosmetics in working areas where there is a risk of contamination by biological agents.

Use of control measures, Regulation 8

Employers must take all reasonable steps to ensure that any control measure, equipment, or facility provided to reduce risks to health are properly used or applied, and are not made less effective by other work practices or by improper use.

Employees must make full and proper use of any control measures provided for materials, plant and processes, and follow the defined method of work. They should wear any PPE correctly and return it after use to the accommodation provided. They should also promptly report any defects they find in any control measure, device, or item of PPE.

Maintenance, Examination and Testing, Regulation 9

Employers should ensure that every element of a control measure performs as originally intended. Measures that rely upon systems of work and supervision should be reviewed at suitable intervals and revised if necessary. In the case of plant and machinery, including engineering controls and personal protective equipment (PPE), it should be maintained in an efficient state, in efficient working order, in good repair and in a clean condition.

All engineering controls must be thoroughly examined and tested at suitable intervals. Those intervals are specified for some types of equipment. In the case of non-disposable respiratory protective equipment, it must be tested at least once a month, and local exhaust ventilation (LEV) must be examined and tested at least every fourteen months, unless a more frequent regime is specifically required.

PPE must be properly stored in a defined place, and if found to be defective, must be repaired or replaced before further use.

Any PPE that becomes contaminated by a hazardous substance must be removed when leaving the working area and kept apart from any uncontaminated clothing or equipment. Contaminated PPE must be either decontaminated and cleaned or if necessary, destroyed.

A suitable record of all examinations and tests, together with any resulting repairs must be kept and retained for a period of at least five years.

Exposure Monitoring, Regulation 10

Employers must ensure that the exposure of employees to substances hazardous to health is monitored at regular intervals where the risk assessment indicates this is needed to ensure the maintenance of adequate controls, or it is necessary for protecting the health of employees.

Procedures for monitoring the exposure of employees is necessary in situations where the deterioration of any control measures could pose a serious risk to health, or measurement is necessary to ensure that exposure limits are not being

exceeded. Also, as a check on the effectiveness of any control measures, or when any change occurs that could affect the level of employee exposure.

A suitable record should be made of all monitoring carried out and retained for forty years if they are representative of the personal exposure of identifiable individuals. Otherwise, they must be kept for five years from the date of the last entry.

Health Surveillance, Regulation 11

Employers are required to make sure that employees receive suitable health surveillance if, given the conditions of the work, an identifiable disease or adverse health effect is reasonably likely because of their exposure to a substance hazardous to health, and there are valid techniques for detecting the disease or adverse health effect.

As such, it may be appropriate, for example in respect of substances known to cause asthma or severe dermatitis. In cases where adverse health effects may be anticipated after a latent period, it may be appropriate for an employer to continue health surveillance after exposure to the substance has ceased.

Employers requiring an employee to attend for health surveillance procedures must allow them to do so during working hours, and bear the costs involved. Examinations conducted under these regulations should be easy to perform, preferably non-invasive, and acceptable to the employees who must provide information about their health that is reasonable for the doctor to require.

Should surveillance confirm an identifiable disease or adverse health effect due to exposure to a hazardous substance, employers must ensure that a suitably qualified person notifies the employee concerned and provides them with information and advice regarding continued health surveillance and any other actions to be taken.

The employer should also consider transferring the employee to alternative work where there is no risk of further exposure to the hazardous substance. In addition, they should review the risk assessment and the adequacy of the existing control measures and provide for a review of the health of any other employee who has been similarly exposed.

Employers must ensure that a health record in respect of each employee concerned is made and kept. An employee has the right to access their personal monitoring record but will need to give reasonable notice to their employer. These health records must be kept in suitable form for at least forty years and made available to the relevant enforcing authority, when required. If the employer ceases to trade, they must notify the relevant enforcing authority in writing and make all the health records available to them.

Information, Instruction and Training, Regulation 12

An employer who undertakes work which is liable to expose employees or others to any substance hazardous to health, must provide them with suitable and sufficient information, instruction and training so that they know and understand the risks, and the necessary precautions that must be taken to safeguard themselves and other people at the workplace.

Reg 12(2) sets out the matters that should be included in the information, instruction and training provided.

Where workplace exposure monitoring is carried out, employees should be provided with the results, particularly in the case of a substance that has been assigned a Workplace Exposure Limit, and the results of the monitoring show the limit has been exceeded.

Employees should also be provided with the collective results of any health surveillance in such a way that the results cannot be identified with any particular person.

Emergency Arrangements, Regulation 13

Employers must have procedures that can be put into effect in the event of an accident, incident or emergency that causes or threatens to cause any employees to be exposed to one or more hazardous substances on a scale or extent beyond the scope of the control measures already in place.

Such procedures should be capable of mitigating the effects of an incident, limiting the extent of any risks to the health of employees, and so far as reasonably practicable, the health of anyone else likely to be affected, such as those in neighbouring properties. It should also be capable of normalising the situation as soon as possible.

The arrangements should include an appropriate warning system, first-aid facilities, and relevant safety drills, which should be tested at suitable intervals. It should also ensure that during the emergency, only those persons who are essential should be permitted in the affected area, and they are provided with appropriate PPE, specialised safety equipment etc.

Employers must provide information to employees on the emergency arrangements. Employees will need to know how to respond to each type of accident, incident or emergency, and what action they should take. Where appropriate, details of the arrangements should be displayed at the workplace. Those with specific responsibilities will need more particular information on what is expected of them.

Relevant accident and emergency services must also be provided with details of emergency arrangements, including information about the hazardous substances, in order that they can then prepare their own response procedures and precautionary measures.

17. CONTROL OF ASBESTOS REGULATIONS 2012

<https://www.legislation.gov.uk/uksi/2012/632/introduction/made>

Control of Asbestos Regulations 2012, Approved Code of Practice and guidance “Managing and working with asbestos”

<https://www.hse.gov.uk/pubns/books/l143.htm>

Introduction

Regulations relating to the control of asbestos were first introduced in 1987, and have since been revised in 2002, 2006 and 2012, to provide greater protection against the hidden dangers that previous use of this material has left behind. These latest regulations bring together three former sets of legislation covering the prohibition of asbestos, the identification and control of asbestos at work and asbestos licensing.

The Control of Asbestos Regulations 2012 make limited changes to the previous legislation of 2006. The changes mean that some types of non-licensed work with asbestos now have additional requirements, i.e., notification of work with asbestos to the relevant enforcing authority, medical surveillance and health surveillance of all workers/self-employed people and record keeping including the nature and duration of the work and estimated level of exposure of each individual worker. All other requirements remain unchanged.

Asbestos is the greatest single cause of work-related deaths in the UK. It is estimated that over 5,000 people a year currently die from asbestos related diseases arising from past exposure at work, and this figure is still rising. Although classified as a hazardous material, in its bonded form asbestos poses no real threat. However, if it is disturbed or damaged in some way, the consequential release of asbestos fibres into the air creates a major risk to health, often many years later.

Asbestos is a naturally occurring mineral. The most common types imported into the UK are crocidolite (blue), amosite (brown) or chrysotile (white). Inhalation of the fibres from any of them can lead to asbestos-related diseases, but the blue and brown types are believed to pose a greater health hazard.

Application

These regulations apply to all workplaces and work-situations covered by the Health and Safety at Work Act 1974. They do not however, apply to the master or crew of a ship or to the employer of such persons in respect of normal shipboard activities carried out solely by the crew.

Neither do those requirements relating to licensing, notification of work, arrangements for accidents and emergencies, designation of asbestos areas, maintenance of health records and medical surveillance apply where:

- the exposure of employees to asbestos fibres is sporadic and of low intensity, and therefore, is not liable to exceed a concentration of 0.6 fibres per cubic centimetre of air measured over any continuous period of 10 minutes
- it is clear from the risk assessment that the exposure of any employee to asbestos will not exceed the control limit of 0.1 fibres per cubic centimetre of air averaged over a continuous period of 4 hours: and
- the work involves –
 - short, non-continuous maintenance activities which would not involve one person working for more than one hour in a seven-day period, or an aggregate total of two hours by all workers
 - removal of materials in which the asbestos fibres are firmly linked in a matrix, such as asbestos cement or textured decorative coatings such as Artex
 - encapsulation or sealing of asbestos containing materials that are in good condition; or
 - air monitoring and control, and the collection and analysis of samples to ascertain whether a specific material contains asbestos.

Employers Duties, Regulation 3

Those responsible for maintenance of non-domestic premises have a duty to manage the asbestos in them and to protect anyone using or working in the premises from the risks to health that exposure to asbestos causes.

Employers can include contractors, sub-contractors, and self-employed persons. Where the regulations place duties on employers in respect to their employees, there is also the same duty, so far as is reasonably practicable, in respect to any other person, who may be affected by the work activity.

However, there is no duty on employers to provide non-employees with medical surveillance or to maintain a record of their health. Neither does the duty to provide information, instruction or training extend to non-employees unless they are on the premises where the work is being carried out.

Duty to Manage Asbestos in Premises, Regulation 4

Assessing the Location and Condition of Asbestos

- Assess the risks from asbestos. Every person who has an obligation of any extent for the maintenance or repair of non-domestic premises should ensure that a suitable and sufficient assessment is carried out as to whether asbestos is or is liable to be present in those premises. That obligation can arise out of ownership or by virtue of a contract or tenancy. Where there is more than one duty holder, the relative contribution to be made by each such person in compliance with this requirement is determined by the nature and extent of the maintenance and repair obligation owed by that person.

While the task of assessing the premises can be delegated to specialist contractors for example, the legal responsibility nevertheless remains with the duty holder, who must also ensure that the organisation or person appointed to carry out the task on their behalf has adequate training, accreditation, and practical experience in such work (ACOP 103).

Other people who are not themselves duty holders, must nevertheless co-operate as far as is necessary to enable the duty holder to identify whether asbestos may be present in the premises.

For example, an owner who has no maintenance or repair responsibilities will still need to provide any information they may have on the premises that will help confirm if asbestos containing materials are present. Similarly, architects or building contractors who were involved in construction or repair of the premises may also have such information which they should make available at reasonable cost. Occupiers of premises must allow the duty holder access to make their assessment.

All reasonable steps must be taken in making the assessment. Duty holders are required to obtain as much documentary information as is available about the premises, such as when it was constructed and the content of building plans that may exist. They should ascertain whether the premises have ever been extended, adapted, refurbished, and if so when the work was done. A drawing should be made of the layout of the premises, and any identifying features such as room numbers or other physical pointers marked on it. This can then be used to record the information collected about the premises (ACOP 112-119).

- They should also inspect those parts that are reasonably accessible.

In places where access is only reasonable at certain times, arrangements should be made for the inspection in those areas to be undertaken at that time. If any material is found that looks as though it might contain asbestos, a sample should be gathered for scientific analysis. If the area cannot be easily accessed, it should be presumed that it contains asbestos unless there is strong evidence to the contrary. A record of the inspection should be made, and where any asbestos containing materials are found or suspected, the record should include the exact location, the extent of it, the form it takes (e.g., tiles, boards) and its condition.

- Prepare a Plan and act on it

Where the assessment shows that asbestos is or is liable to be present in any part of the premises, the duty holder should ensure that a determination is made of the risk of anyone being exposed to asbestos fibres. This should

take account of the type of asbestos, the form of the material it is contained in, whether it has already deteriorated or been damaged, how accessible it is to damage through normal use, and whether it is likely to be disturbed or damaged in the course of any planned work. Each separate location and type of material will need to be assessed separately (ACOP I29).

- Manage the risk.

A written plan must be prepared that identifies those parts of the premises concerned and how the risks from any asbestos containing materials found or presumed during the inspection are to be managed. Managing the risk means making sure that as far as reasonably practicable no-one can come to any harm from asbestos. The plan will need to specify whether any repair or removal work needs to be done, and the order of priority for this. Generally, the areas of highest risk will need the earliest attention and the strictest management (ACOP I30).

In deciding how best to manage the risk, a number of factors need to be taken into account including the condition of the material. If in good condition and unlikely to be damaged or disturbed, then it is probably better to leave it in place and introduce a system of management. However, if in poor condition, consideration will need to be given as to whether it should be repaired or removed. This will need to take account of for example, the type of asbestos involved, the extent of the damage or deterioration to the material, and how easy it will be to safely remove it. If it is decided that the asbestos containing material can be safely left in place, arrangements must be made for it to be regularly checked, and for details of the location and condition to be made available to any person liable to disturb it. These arrangements should be specified within the plan, and the employees told about them. Information about the location and condition of any known or presumed asbestos containing materials should also be made available to any new occupier of the premises and to the emergency services, particularly the fire brigade (GN I36 -I42).

- Monitor arrangements

The original assessment and/or the plan must be reviewed and revised as necessary if there is any reason to suspect that it is no longer valid. For example, information may come to hand about where asbestos may be found or building works may provide the opportunity to confirm whether previous suspect areas do contain asbestos containing materials. When any asbestos containing material is removed or repaired, or the condition of it changes, the plan must be updated accordingly (ACOP I43).

Risk Assessment, Regulations 5 & 6

No demolition, maintenance, or other work liable to expose employees to asbestos should be carried out unless the employer has made a suitable and sufficient assessment of the risk created by that likely exposure to the health of those employees, and the steps needed to meet the requirements of these regulations have been identified and implemented. The significant findings of that assessment, including the preventative or protective measures needed must then be recorded as soon as is practicable.

The risk assessment should:

- identify the type of asbestos involved
- assume it contains either crocidolite (blue) or amosite (brown) where there is any doubt as to whether asbestos is present or not
- determine the nature and degree of exposure which may occur in the course of the work
- consider the results of any exposure monitoring and health surveillance
- set out the measures needed to prevent exposure or reduce exposure to the lowest level reasonably practicable
- for licensed work, the assessment must also include the arrangements required to ensure on completion the premises are left clean and safe for reoccupation.

The risk assessment must be reviewed regularly, and immediately if there is reason to believe it is no longer valid, such as may happen if there is a significant change in the work to which it relates, or the results of any air monitoring show it to be necessary.

Plan of Work, Regulation 7

An employer should not undertake any work with asbestos, including maintenance work that may disturb it, unless a suitable written plan of work or method statement has been prepared detailing how that work is to be carried out. It must then be kept at the premises to which it relates until the work has been completed.

The plan of work must include:

- details of the nature, location, and probable duration of the work
- the methods to be applied where the work involves the handling of asbestos or materials containing asbestos
- characteristics of the equipment to be used for the protection and decontamination of those carrying out the work, and the protection of other persons on or near the worksite
- details of the control measures to prevent or minimise exposure

- the measures needed to ensure that the premises are thoroughly cleaned on completion of the work
- for licensed work, the plan should also include details of the hygiene arrangements, air monitoring and emergency procedures.

In cases of demolition or major refurbishment of premises, unless it would cause greater risk to employees than if the asbestos had been left in place, the plan of work should also specify that the asbestos must be removed before any other major works begin.

The employer must, so far as is reasonably practicable, ensure that the work is then carried out in accordance with the written plan.

Carrying Out Work with Asbestos, Licensing of Work, Regulation 8

Except for the type of work specified within Regulation 3, an employer is not permitted to undertake any work with asbestos unless they possess a license issued by the Health and Safety Executive which may be valid for any period up to a maximum of three years and may be granted subject to such conditions as the Executive consider appropriate.

To be granted a license by the Executive, the employer must be able to show adequate knowledge of all the legal requirements relating to work with asbestos containing materials, and demonstrate their competence in the types of work intended to be carried out.

Notification of Work, Regulation 9

Except for the type of work specified within Regulation 3, no work with asbestos should be carried out unless the employer has first given written notification to the relevant enforcing authority for the premises in question at least 14 days before commencement of that work, or at such shorter notice as the enforcing authority may agree.

The notification should include details of the employer, the location of the work, the type of asbestos, the activities and processes involved, the measures taken to limit exposure, the number of workers involved, the planned date of commencement of the work and its expected duration. Should there be any subsequent material alteration in the work that might affect the notified particulars, the employer should immediately inform the enforcing authority immediately of the change.

For work with asbestos which is non licensable and not exempted by Reg 3, an employer must notify the enforcing authority for the premises before work commences of any material change.

Information, Instruction and Training, Regulation 10

An employer who undertakes work that is liable to expose employees to asbestos, must provide them and their supervisors with adequate information, instruction, and training. It should cover:

- the properties of asbestos and the operations that could result in asbestos exposure
- the effects of asbestos on health including the increased risk to smokers
- safe work practices, control measures and protective equipment
- the purpose, proper use and maintenance of respiratory protective equipment
- the control limit and the need for air monitoring
- hygiene requirements and decontamination procedures
- waste handling procedures
- emergency procedures where required; and
- any medical examination requirements.

In addition, unless the employer can ensure they only work in or on buildings free of asbestos, all employees and their supervisors who undertake demolition, refurbishment, maintenance, or allied activities that could potentially disturb the fabric of a building should be provided with asbestos awareness training. This should cover the properties of asbestos and its effects on health including the increased risk to smokers, the types and likely occurrences of asbestos in buildings, the action to be taken should they suspect the presence of asbestos containing materials, and what to do in the event of an uncontrolled release of asbestos dust in the workplace (ACOP 225).

All such information, instruction and training should be given at regular intervals, take account of any changes in the type or method of work (Reg 10 (2)) and delivered by means of both written and oral presentation, and by demonstration where necessary.

Control Measures, Prevention or Reduction of Exposure, Regulation 11

Employers must prevent the exposure to asbestos of any employee so far as is reasonably practicable, by carrying out the work in a way that ensures that it is not disturbed.

Where, however, the disturbance of the asbestos is unavoidable, employers are required to reduce the exposure to the lowest level reasonably practicable by measures other than the use of respiratory protective equipment. Also, they must ensure that the number of employees who will be exposed to asbestos is as low as reasonably practicable.

Measures to reduce exposure should include, in order of priority-

- (a) the design and use of appropriate work processes, systems, and engineering controls together with the provision and use of suitable work equipment and materials to avoid or minimise the release of asbestos; and
- (b) the control of exposure at source, including adequate ventilation systems and appropriate organisational measures.

Where reasonably practicable the employees concerned should also be provided with suitable respiratory equipment to provide additional protection. However, where, despite the application of the control measures, any employee's exposure level still has the potential to exceed the control limit, the employer must provide those employees with suitable respiratory protective equipment that will reduce the concentration of asbestos in the air inhaled by those employees to a concentration that is as low as reasonably practicable, and in any event below the control limit.

If at some point any employees are then found to be breathing air in which the concentration exceeds the control limit, as may happen with an uncontrolled release of asbestos, the employer must inform the employees concerned together with their health and safety representative and take immediate steps to remedy the situation. These remedial steps should then be checked by means of air monitoring to ensure their effectiveness.

Use of Control Measures etc, Regulation 12

Employers must take all reasonable steps to ensure that any control measure, process, equipment, or facility provided to prevent or reduce risks to health are properly used or applied as the case may be and are not made less effective by other work practices or activities.

They should establish procedures for visual checks and observations to be made at appropriate intervals, and for prompt remedial action to be taken where necessary (ACOP 310).

Similarly, employees are required to make full and proper use of any control measure, process, equipment, or facility provided by the employer to prevent or reduce risks to health from exposure to asbestos. They should wear any respiratory or personal protective equipment correctly and take all reasonable steps to return it after use to the accommodation provided. They should also promptly report any defects they find in any control measure, device, or item of respiratory or personal protective equipment.

Maintenance of control measures etc, Regulation 13

Employers must have a maintenance programme to ensure that all plant and equipment, including engineering controls and personal protective equipment

provided as a control measure to meet the requirement of these regulations are maintained in an efficient state, in efficient working order, in good repair and in a clean condition. Systems of work, supervision and other forms of control should also be reviewed at suitable intervals and revised if necessary.

Where exhaust ventilation equipment or non-disposable respiratory protective equipment is provided, it must be thoroughly examined and tested at suitable intervals by a competent person. Employers should also ensure that non-disposable respiratory protective equipment is always examined and checked it is in good working order before being used. A suitable record of all examinations and tests, together with any resulting repairs must be kept and retained for a period of at least five years.

Provision and Cleaning of Protective Clothing, Regulation 14

Employers must provide adequate and suitable protective clothing for those employees who are exposed or are liable to be exposed to asbestos unless no significant quantity of asbestos is liable to be deposited on the employee's clothes.

Where protective clothing is provided, the employer must ensure that it is either disposed of as asbestos waste or regularly cleaned at suitably equipped facilities. Where it is to be removed from the premises for this purpose, it must be packed in a suitable receptacle, and correctly labelled in accord with the provisions of Schedule 2 of these regulations.

Should a significant quantity of asbestos be deposited on the personal clothing of an employee due to a failure or improper use of protective clothing, the personal clothing must be treated as if it were protective clothing and disposed of as asbestos waste or cleaned at suitably equipped facilities.

Emergency Arrangements, Regulation 15

Unless the work is of a type covered by Regulation 3 or the amount of asbestos on the premises is so small that any risk to health would be minimal, employers should prepare procedures that can be put into effect in the event of an accident, incident or emergency that causes or threatens to cause any employees to be exposed to asbestos on a scale or extent beyond the scope of the control measures already in place. The procedures should cover what to do, how to remedy the situation, and should include an appropriate warning system, first-aid facilities, and relevant safety drills, which should be tested at suitable intervals.

In the event of an accident, incident or emergency related to the unplanned release of asbestos at the workplace, the employer should ensure that immediate steps are taken to mitigate the effects of the event, restore the situation to normal, and inform any person who may be affected. They should also ensure only those

persons essential for repairs and other necessary work are permitted in the affected area, and that they are provided with appropriate respiratory protective equipment and protective clothing, together with other specialist safety equipment that may be needed.

Employers must provide information to employees on the emergency arrangements. Where appropriate, details of the arrangements should be displayed at the workplace. Those with specific responsibilities will need more particular information on what is expected of them. Relevant accident and emergency services must also be provided with details of the emergency arrangements in order that they can then prepare their own response procedures and precautionary measures.

Duty to Prevent or Reduce the Spread of Asbestos, Regulation 16

Employers should prevent or, where this is not reasonably practicable, reduce to the lowest level reasonably practicable, the spread of asbestos from any workplace under their control.

This means it should not be left loose or in a state where it can be trampled on, and any plant or equipment which has been contaminated with asbestos should be thoroughly decontaminated before it is moved for use in other premises or for disposal (ACOP 383).

Cleanliness of Premises and Plant, Regulation 17

Where the work undertaken exposes, or is liable to expose employees to asbestos, employers must ensure that the premises and the plant used in connection with that work are kept in a clean state and thoroughly cleaned on completion of the work.

To aid the process of cleaning, employers should choose methods of work and equipment that helps prevent the build-up of asbestos waste on floors and surfaces in the working area. Dustless methods of cleaning should be used including, wherever practicable, a vacuum cleaner that meets the relevant specification for this purpose (ACOP 423).

Designated Areas, Regulation 18

Except for the type of work specified within Regulation 3, every employer must ensure that any area in which work under their control is liable to expose an employee to asbestos is separately demarcated and designated an asbestos area.

Should the concentration of asbestos in that area exceed, or liable to exceed the control limit, it must be separately demarcated and designated a respirator zone. The employer must ensure that only competent employees enter a respirator zone, and that they are always supervised while in the zone.

Asbestos areas and respirator zones should be marked accordingly, in the case of a respirator zone the notice should include the warning that exposure is liable to exceed the control limit and that respiratory protective equipment must be worn.

Employers must ensure employees do not eat, drink, or smoke in a designated asbestos area or respirator zone and must make arrangements for them to eat or drink elsewhere.

Air Monitoring, Regulation 19

Except where the degree of exposure is unlikely to exceed the control limit, or it can be demonstrated by another method of evaluation that exposure has been reduced to as low as is reasonably practicable by means other than the use of respiratory protective equipment, employers are required to monitor the exposure of employees to asbestos by measurement of asbestos fibres present in the air.

Such monitoring should be at regular intervals and when a change occurs that may affect the level of exposure or there are any doubts about the effectiveness of the control measures. A suitable record should be made of all monitoring carried out and retained for forty years if they are representative of the personal exposure of identifiable individuals. Otherwise, they must be kept for five years from the date of the last entry.

On being given reasonable notice, an employer must allow an employee access to their personal monitoring record. They must also provide the Health and Safety Executive with copies of such monitoring records upon request, and if the employer ceases to trade, they must notify the HSE in writing and make all the monitoring records available to them.

Standards for air testing, Regulation 20

The method of exposure monitoring must comply with the relevant standards and should only be carried out by a person who is accredited by an appropriate body as complying with those standards.

Employers must also ensure that any person requested to certify whether premises where work with asbestos has been carried out have been thoroughly cleaned upon completion of that work and are suitable for reoccupation, is similarly accredited by an appropriate body as complying with the required standards.

Analysing Samples, Regulation 21

Employers must ensure that any person engaged to analyse samples of material to determine whether they contain asbestos are accredited for this purpose by an appropriate body as complying with the relevant standard. Employers carrying out their own analysis of samples should ensure that employees carrying out this work meet equivalent standards of training, supervision, and quality control.

Health Surveillance, Regulation 22

Except for the type of work specified within Regulation 3, employers are required to ensure that all employees who are exposed to asbestos are under adequate health surveillance by a relevant doctor. Each medical examination must include a specific examination of the chest and should commence no more than two years prior to being exposed to asbestos and continue at intervals of two years or less all the while exposure to asbestos continues.

Employers requiring an employee to attend such medical examinations should arrange for this to take place during working hours, and bear the costs involved. Where it is to take place on the employer's own premises, they must ensure that suitable facilities are made available for the purpose. Employees are required to co-operate with their employer regarding attendance for medical examinations and must provide information about their health that is reasonable for the doctor to require. On completion of each examination, the doctor should issue a certificate to both the employer and employee confirming the date on which it took place.

The employer is required to establish and maintain a personal health record in respect of each employee concerned. This should contain details of the identity of the employee, each certificate of medical examination, a record of the types of work with asbestos that the employee has undertaken, the average number of hours of exposure per week, and any known record of past exposure with a previous employer. An employee has the right to access his/her personal health record but will need to give reasonable notice. These health records must be kept in suitable form for at least forty years from the date of the last entry and copies made available to the HSE, when required. If the employer ceases to trade, they must notify the HSE in writing and make all the health records available to them.

Should surveillance confirm an identifiable disease or adverse health effect due to exposure to asbestos, employers must ensure that a suitable person notifies the employee concerned and provides them with information and advice regarding further health surveillance. The employer should also consider transferring the employee to alternative work where there is no risk of further exposure to asbestos. In addition, they should review the risk assessment and the adequacy of the control measures and provide for a review of the health of any other employee who has been similarly exposed.

Washing and Changing Facilities, Regulation 23

Employers must provide adequate washing and changing facilities for any of his employees who are exposed or liable to be exposed to asbestos. The type and extent of such facilities should be determined by the type and amount of exposure as indicated by the risk assessment, but ordinarily should be suitable and sufficient to enable the employees to clean and decontaminate themselves, prevent the spread of asbestos, and to reduce the risk of exposure of others.

Where there is a requirement for the provision of protective clothing, adequate facilities must be provided for its storage, and for the storage of personal clothing not worn during working hours. Similarly, where there is a requirement to provide respiratory protective equipment, adequate facilities for the storage must also be provided.

Facilities provided for the storage of protective clothing, respiratory protective equipment and personal clothing not worn at work must be kept separate from each other.

Storage, Distribution and Labelling, Regulation 24

Employers should ensure that raw asbestos or waste containing asbestos is not stored, received, or despatched from any place of work or distributed within any place of work, unless it is in a sealed container or, where more appropriate, sealed wrapping clearly marked to show that it contains asbestos.

Receptacles or sealed wrapping containing raw asbestos must be labelled in accord with Schedule 2 of these regulations. The same also applies to waste containing asbestos, except where the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2004 apply. In that case they must be labelled in accord with the requirements of those regulations.

Prohibitions of exposure to asbestos, Regulations 26

- A person must not undertake asbestos spraying or working procedures that involve using low-density (less than 1g/cm^3) insulating or soundproofing materials which contain asbestos
- Every employer must ensure that no employees are exposed to asbestos during the extraction of asbestos
- Every employer must ensure that no employees are exposed to asbestos during the manufacture of asbestos products or of products containing intentionally added asbestos.

Additional provisions in the case of exceptions and exemptions, Regulation 28

Where under an exemption granted pursuant to regulation 29 or regulation 30 asbestos is used in a work process or is produced by a work process, the employer must ensure that the quantity of asbestos and materials containing asbestos at the premises where the work is carried out is reduced to as low a level as is reasonably practicable and the employer must ensure that any part of the building in which the process is carried out is:

- so designed and constructed as to facilitate cleaning; and
- is equipped with an adequate and suitable vacuum cleaning system which must, where reasonably practicable, be a fixed system.

Extension outside Great Britain, Regulation 31

These Regulations apply to any work outside Great Britain to which sections 1 to 59 and 80 to 82 of the 1974 Act apply by virtue of the Health and Safety at Work etc. Act 1974 (Application Outside Great Britain) Order 2001(1) as they apply to work in Great Britain.

18. CONTROL OF NOISE AT WORK REGULATIONS 2005

<https://www.legislation.gov.uk/ukSI/2005/1643/contents>

Controlling noise at work, The Control of Noise at Work Regulations 2005, Guidance on Regulations

<https://www.hse.gov.uk/pubns/priced/l1108.pdf>

Introduction

The Control of Noise at Work Regulations 2005 are based on the EU Physical Agents (Noise) Directive and aim to ensure that workers' hearing is protected from excessive noise at their place of work which could cause them to lose their hearing and/or to suffer from tinnitus (permanent ringing in the ears).

Long-term exposure to excessive noise can result in temporary or permanent hearing loss. A worker whose hearing is becoming impaired may not notice the reduction until irreversible damage has been done. These regulations seek to further address the need to minimise levels of noise and protect hearing to avoid such an event.

Application

The regulations apply to all workplaces and work-situations covered by the Health and Safety at Work Act 1974, including offshore installations and connected activities. However, they do not extend to the crew of a ship in respect of normal shipboard activities which they alone carry out.

Employers Duties, Regulation 3

These Regulations shall have effect with a view to protecting persons against risk to their health and safety arising from exposure to noise at work.

Employers can include contractors, sub-contractors and self-employed persons. Where the regulations place duties on an employer in respect of their employees, there is also a like duty, so far as is reasonably practicable, in respect of any other person who may be affected by the work activity, apart from any health surveillance that may be needed.

On multi-contractor sites or premises, all employers should agree as to who will co-ordinate action to comply with the requirements of the regulations. Usually, it will be the person in overall control of the work that will take on the responsibility and ensure noise exposure is assessed and that information on noise is made available to other employers (GN 14 -19).

While each employer is then responsible for giving information, instruction and training to their own employees, the person in overall control of the work will

need to ensure that any other person who is present at the workplace where the work is being carried out receives any necessary information, instruction, and training.

Noise Exposure Levels

For these regulations, the daily or weekly personal noise exposure is the combination of the level of noise expressed in decibels which an employee is exposed to, and the duration of time involved (GN 24).

Normally the calculation should be based on the daily personal noise exposure, but in circumstances where noise levels may vary markedly from day to day, such as where noisy power tools are only used on one or two days a week, exposure may instead be calculated over a whole week.

However, when considering whether to use weekly averaging, the employer should ensure it will not increase risks to health. They should also fully consult the relevant health and safety representatives as to the appropriate period of calculation to be used (GN28 and 29).

Exposure Limit Values and Action Values, Regulation 4

Exposure action values are the levels of exposure to noise at which the employer is required to take certain steps, and exposure limit values are the levels of noise above which an employee may not be exposed. They relate to the levels of exposure to noise averaged over a working day or week, and the maximum noise or peak sound pressure to which an employee is exposed in a working day.

The loudness of a sound (the sound pressure level) is measured in units of decibels (db).

- The lower exposure action values are-
 - a daily or weekly personal noise exposure of 80db(A-weighted)
 - a peak sound pressure of 135db(C-weighted)
- The upper exposure action values are-
 - a daily or weekly personal noise exposure of 85db(A-weighted)
 - a peak sound pressure of 137db(C-weighted)
- The exposure limit values are-
 - a daily or weekly personal noise exposure of 87db(A-weighted)
 - a peak sound pressure of 140db(C-weighted)

In applying the exposure limit values (but not action values), account can be taken of the estimated reduction in noise provided by the wearing of hearing protection, based upon information from the manufacturer of the hearing protection device used.

Assessment of risk, Regulation 5

Where exposure to noise is likely to reach or exceed the lower exposure action level, the employer must ensure that a competent person undertakes a suitable and sufficient assessment of the risks to the health and safety of employees. The assessment should also identify the measures that need to be taken to meet the requirements of these regulations.

The general assessment of risks to health and safety required under the Management Regulations should give an indication as to whether there is likely to be a hazard from noise that needs specific assessment. Noise is likely to be at hazardous levels where it is possible to hold a conversation, but the noise is intrusive for long periods of time or there is a need to shout to talk to someone two metres away. When in doubt, it should be assumed that a risk assessment is required (GN 32 and 33).

Relevant health and safety representatives should always be consulted on the outcome of the assessment, and the resulting measures that are proposed to be taken as per the Safety Representatives and Safety Committee Regulations.

Factors to consider

The assessment should include consideration of the level, type and duration of exposure; workers who may be at particular risk such as those with pre-existing hearing conditions, pregnant women or young people; any health surveillance data; and any extension of exposure to noise beyond normal working hours e.g., during overtime or meal breaks.

In addition, it should consider information provided by manufacturers on the noise emissions of work equipment; the availability of alternative equipment which produces less noise; the availability of suitable personal hearing protection; and the safety risks from possible masking effects of the noise or personal hearing protectors in relation to any audible warning signals.

Review and Record

The assessment should be regularly reviewed, and whenever there is reason to believe it is no longer valid, such as may happen when new machinery is introduced or there are significant changes in workload, machine layout, building structure etc. Where any changes to the preventative or protective measures are indicated, these should be implemented as soon as possible.

The significant findings of the assessment must be recorded, and this should include the level of risk and exposure, the circumstances under which it would occur, and the group of workers involved. It should also state the actions taken or to be taken to eliminate or reduce the risk, including any information, instruction, or training to be provided to employees.

Elimination or Control of Exposure, Regulation 6

Employers have an overriding requirement to ensure the risk to employees' health and safety from exposure to noise is either eliminated at source or, where this is not reasonably practicable, reduced to the lowest level reasonably practicable, regardless of whether it reaches any of the exposure action values. This means that in addition to taking the steps required by these regulations to reduce exposure below the upper action value, employers need to consider whether more can be done to further reduce any risk to hearing.

Where an employee is likely to be exposed to noise at or above an upper exposure action value, employers must reduce exposure to as low a level as is reasonably practicable by establishing and implementing a programme of organisational and technical measures excluding the provision of personal hearing protectors. This will involve implementing a programme that will identify and implement control measures that are appropriate and reasonably practicable to reduce risk and establish priorities.

Where adequate reduction is not reasonably practicable in the short term, the programme should continue to operate if necessary and should include regular reviews of the feasibility of further noise reduction measures that become available.

Methods of Control

The actions to be taken by the employer should be based on the general principles of prevention contained in the Management of Health and Safety at Work Regulations 1999, and should include consideration of –

- other working methods which reduce exposure to noise
- choice of appropriate work equipment emitting the least possible noise, taking account of the work to be done
- the design and layout of the workplace, workstations, and rest facilities
- suitable and sufficient information and training for employees on the correct use of work equipment that minimises their exposure to noise
- reduction of noise by technical means
- appropriate maintenance programmes for work equipment, the workplace and workplace systems
- limitation of the duration and intensity of exposure to noise
- Appropriate work schedules with adequate rest periods.

Exposure Limit Value

Employers should ensure that workers are not exposed to noise above an exposure limit value, and where this should happen, they should take immediate steps to reduce exposure back below the limit value. They should then identify the reason why the exposure limit value was exceeded and modify their control measures to prevent it from happening again.

Hearing Protection, Regulation 7

Where noise exposure is likely to reach the lower action value, the employer must provide suitable and efficient hearing protectors to workers who ask for them. In such circumstances, although there is a duty to provide hearing protectors, the regulations do not require an employer to then actually enforce their use at this stage.

However, if despite all reasonably practicable methods of control, the degree of noise exposure remains at or exceeds the upper action value, the use of hearing protectors becomes mandatory. Employers must provide them, and ensure that they are of a suitable type which when properly worn, can be expected to eliminate the risk to hearing or to reduce the risk to as low a level as is reasonably practicable.

Hearing Protection Zone

If in any area of the workplace an employee is likely to be exposed to noise at or above an upper exposure action value, the area should be designated a hearing protection zone. The area should be demarcated and marked with notices to indicate that ear protection must be worn.

Employers should ensure that access to any hearing protection zone is restricted to those who need to do so to carry out their work. They should also ensure so far as reasonably practicable, that no-one enters the zone unless they are wearing personal hearing protection.

Maintenance and Use of Equipment, Regulation 8

Duties of employers

Other than where hearing protectors are optional, employers must so far as is practicable, ensure that anything they provide in order to reduce risk to hearing is fully and properly used.

They will need to establish procedures for this purpose, and for the reporting of problems and defects so that prompt remedial action can be taken where necessary (GN 92).

Employers must also ensure that anything they provide for noise protection purposes is maintained in efficient working order and in a good state of repair (GN 93).

The maintenance programme should include the monitoring of noise control equipment, such as enclosures, for their effectiveness. This can normally be achieved by spot checks of the noise level at pre-selected locations (GN 94).

Provision should be made for the clean storage of re-usable ear protectors, and where appropriate, special cleaning materials needed for hygiene made available to users. If disposable protectors are used, regular checks should be made to ensure that a continuous supply is available (GN 98-99).

Duty of Employees

Employees are required to make full and proper use of any control measures provided. This includes wearing personal hearing protectors correctly and using any noise control measures such as exhaust silencers in accordance with instructions. They should also promptly report any defects with any protective equipment or devices that are provided.

Health Surveillance, Regulation 9

Where the risk assessment indicates there is a risk to the health of employees as a result of their exposure to noise, the employer must ensure those employees are placed under suitable health surveillance which should include regular hearing checks.

Such a risk would normally arise where workers are liable to be regularly exposed to noise above the upper exposure action values. However, where the noise level is liable to be regularly between the lower and upper action values, or where workers are only occasionally exposed to noise above the upper action value, health surveillance may still be required for certain individuals where tests or history have shown they are particularly sensitive to noise (GN 103).

Health and safety representatives should always be consulted before any health surveillance is introduced as per the Safety Representatives and Safety Committee Regulations.

Workers attending any health surveillance procedures should only be required to do so during working hours, with all costs borne by the employer.

An individual health record must be made and kept in respect of each employee, to which they also have right of access on giving reasonable notice. In addition, the employer must provide copies of such health records upon any request from the relevant enforcing authority.

Where as a result of health surveillance, an employee is found to have identifiable hearing damage as a result of exposure to noise, the employer must ensure that a suitably qualified health professional informs the employee concerned, and provides them with advice regarding the risks of continued exposure to noise at work.

The employer must also consider transferring the employee to alternative work where there is no risk of further exposure to noise. Such consideration should take account of any medical advice received. In addition, the employer should review the risk assessment and the adequacy of the existing control measures and provide for a review of the health of any other employee who has been similarly exposed.

Information, Instruction and Training, Regulation 10

Employers must provide sufficient information, instruction and training so that

workers who are likely to be exposed to noise which is likely to be at or above a lower exposure action value, know and understand the risks to hearing, and the necessary precautions that must be taken in order to safeguard themselves and other people at the workplace.

In particular, the information, instruction and training should include as appropriate:

- the likely noise exposure and the risk to hearing that it creates
- how to use the equipment provided to control noise
- where and how to use equipment to control noise
- how to correctly fit and wear any hearing protectors provided and what their limits are
- what health surveillance will be provided, and how it will be done
- the employers' duties under the Noise Regs
- what is being done to control the risks and exposures
- organisational and technical measures
- safe working practices to ensure minimum exposure to noise
- employee's individual duties under the regulations
- how to report defects in hearing protectors and noise control equipment
- what symptoms of hearing damage employees should look out for, who they should report them to, and how they should report them.
- what health surveillance employees will be provided with and how you are going to provide it; what symptoms they should look out for (such as difficulty in understanding speech in conversation or when using the telephone, or permanent ringing in the ears), to whom and how they should report them.

19. CONTROL OF VIBRATION AT WORK REGULATIONS 2005

<https://www.legislation.gov.uk/ukSI/2005/1093/contents/made>

Hand-arm vibration at work: A brief guide INDG175 (rev3)

Advice for employers Hand-arm vibration INDG296 (rev2)

Advice for employees

Introduction

The Control of Vibration at Work Regulations are based on the European Directive on the minimum health and safety requirements regarding the risks arising from physical agents.

They are designed to protect against risks to health and safety from hand-arm vibration and whole-body vibration. Also, situations where vibration may affect the stability of structures, the ability to safely position equipment, handle controls or read instruments.

Regular exposure to hand-arm vibration arising primarily from the use of power tools such as disc cutters, grinders or hammer drills can cause a range of medical conditions which are collectively known as hand-arm vibration syndrome (HAVS). These include vibration white finger and carpal tunnel syndrome.

Whole-body vibration mainly affects drivers of mobile vehicles or machines, particularly those with poor suspension or operate mostly off-road. The exposure to this form of constant vibration is transmitted either via the seat or the platform on which the person is standing, causing back pain or making it worse.

Application

The regulations apply to all workplaces and work-situations covered by the Health and Safety at Work Act 1974. They do not however, apply to the master or crew of a ship or to the employer of such persons in respect of normal shipboard activities carried out solely by the crew.

Where the regulations place duties on an employer in respect of their employees, there is also a like duty, so far as is reasonably practicable, in respect of any other person, who may be affected by the work activity. However, there is no duty on employers to provide such people with medical surveillance or to maintain a record of their health. Neither does the duty to provide information, instruction or training extend to them unless they are on the premises where the work is being carried out.

Exposure Limit Values and Action Values, Regulations 2 and 4

Daily exposure to vibration is measured by a formula known as an "A (8) value". This is the average (A) over an eight-hour day and takes in to account the

magnitude of the vibration and how long workers are exposed to it, above which the employer is required to take steps to reduce exposure.

Each of the exposure values are measured in metres per second squared (m/s^2)

- For hand-arm vibration –
 - daily exposure limit value is $5 m/s^2 A(8)$
 - the daily exposure action value is $2.5 m/s^2 A(8)$
- For whole-body vibration –
 - the daily exposure limit value is $1.15 m/s^2 A(8)$
 - the daily exposure action value is $0.5 m/s^2 A(8)$

Assessment of the risk to health created by vibration at the workplace, Regulations 5(1) & (2)

Employers who carry out work which is liable to expose any of their employees to a risk to their health and safety as a result of vibration must undertake a suitable and sufficient assessment of that risk with a view to identifying the measures that need to be taken to meet the requirements of these regulations.

Assessing the Level of Exposure

In conducting the risk assessment, the employer must assess the daily exposure to vibration by observing the specific working practices, referring to any relevant information that may be available on the probable level of vibration corresponding to the equipment in the working conditions concerned and, if necessary, by measuring the actual level of vibration to which the employees are exposed. The assessment should also identify whether any employees are likely to be exposed to vibration at or above an exposure action value or above an exposure limit value.

Factors for Consideration, Regulation 5(3)

Matters the risk assessment will need to consider include –

- the type, level, and duration of exposure, including any exposure to intermittent vibration or repeated shocks. The higher the level of vibration and the longer the duration, the greater the person's exposure will be
- the effects of vibration on employees whose health is at particular risk of such exposure
- any effects of vibration on the workplace or work equipment, including the proper handling of controls, the reading of instruments and the stability of structures
- information provided by manufacturers of work equipment known to vibrate when in use, and the type of conditions under which this is likely to occur

- the availability of replacement equipment which would cause less exposure to vibration or would reduce any of the risk factors
- specific working conditions such as low temperatures which can adversely impact upon any existing medical condition caused by or made worse by vibration
- appropriate information obtained from health surveillance or other form of monitoring including, where possible, any published information
- any exposure to whole-body vibration during rest periods taken on the vehicle or machine while it continues to be driven or operated; and
- appropriate information obtained from health surveillance including, where possible, published information.

In the case of hand-arm vibration, this would include employees with existing HAVS, diseases affecting blood circulation such as diabetes, or nerve disorders like carpal tunnel syndrome. For whole body vibration it would include pregnant workers, those with existing back or neck problems, or employees who have recently undergone any form of surgery (GN 35).

Review and Record, Regulations 5(4) & (5)

The assessment should be regularly reviewed, and also reviewed whenever there is reason to believe it is no longer valid, such as may happen when there is a significant change in the work or work equipment to which the assessment relates, or there are doubts about the effectiveness of the control measures that are in place.

Where any changes to the controls are indicated, these should be implemented as soon as possible.

The significant findings of the assessment must be recorded, and this should include the tasks assessed, the level of risk, the likelihood of the exposure action and limit values being exceeded, the circumstances under which it would occur, and the group of workers involved. It should also state the actions taken or to be taken to eliminate or reduce the risk, including any information, instruction, or training to be provided to employees.

Elimination or control of exposure to vibration at the workplace, Regulations 6(1) & (2)

Where it is not practicable to eliminate the risk and an exposure action level is likely to be reached or exceeded, a formal programme of control measures must be introduced.

However, as exposure below the action level still carries some risk, this does not mean that efforts to reduce exposure should cease at this level if further reductions can be achieved at reasonable cost.

Elimination or Control of Exposure, Regulations 6(3) & (6)

Employers must ensure that risk to employees from exposure to vibration is either eliminated at source or, where this is not reasonably practicable, reduced to as low a level as is reasonably practicable.

Control Measures

Measures to eliminate or reduce exposure should be based on the general principles of prevention contained in the Management of Health and Safety at Work Regulations, and should include consideration of –

- other working methods that eliminate or reduce exposure to vibration, such as the automation of work
- choosing work equipment of appropriate ergonomic design which, taking account of the work to be done, produces the least possible exposure to vibration
- the provision of auxiliary equipment, such as balanced grinding wheels or suspension seats which reduce the risk of vibration injuries
- appropriate maintenance programmes for work equipment, the workplace and workplace systems
- the design and layout of the workplace, workstations and rest facilities which can reduce the aggravating risk factors such as manual handling or poor posture
- suitable and sufficient information and training for employees on the correct and safe use of work equipment
- limitation of the duration and, therefore, level of exposure to vibration
- appropriate work schedules with adequate rest periods; and
- the provision of clothing to protect employees from cold and damp.

Any measures taken to eliminate or reduce exposure must, where necessary, be modified to take account of any employee or group of employees who is likely to be particularly at risk from vibration.

Exposure Limit Values, Regulations 6(4) & (5)

Employers must ensure that except where it has yet to apply, their employees are not exposed to vibration above an exposure limit value. If however, it is found that an exposure limit value is being exceeded, immediate action must be taken to reduce the exposure. It will then be necessary to identify the reason why the exposure limit value was exceeded, and to modify the existing control measures to prevent it from happening again.

However, where exposure is usually below the exposure action value, but varies markedly from time to time which may include occasionally exceeding the exposure limit value, the level of daily exposure can be averaged over a week, provided that –

- the calculated exposure to vibration averaged over one week is less than the exposure limit value
- there is evidence to show that the risk from the actual pattern of exposure is less than the corresponding risk from constant exposure
- risk is reduced to as low as reasonably practicable considering the special circumstances; and
- the employees concerned are subject to an increase in any required health surveillance being carried out in accord with Regulation 7.

Health Surveillance, Regulation 7(1) & (2)

Where employees are likely to be regularly exposed to hand-arm vibration at or above an exposure action level, or the risk assessment indicates the health of some employees is at particular risk from their exposure to such vibration, the employer must ensure that these workers are placed under suitable health surveillance.

However, there is no legal requirement for health surveillance in the case of whole-body vibration as there are no current methods for the detection of physical changes which can reliably indicate the early onset of low back pain specifically related to workplace factors.

Nevertheless, RMT advice is that the introduction of an informal system of health monitoring, which allows individuals to report early symptoms of low back pain can prove useful as an indicator as to whether some form of action on whole-body vibration, manual handling or poor posture is needed.

Employers requiring an employee to attend for a health check as part of the surveillance arrangements should organise this to take place during working hours, and bear any costs involved.

Employees are required to co-operate with their employer regarding attendance for such health checks and must provide information about their health that is reasonable for the health professional to require.

Regulations, 7(3), (4) & (6)

A personal health record should be established and maintained by the employer in respect of each employee concerned. This should contain information on the outcome of the health surveillance and the employee's continued fitness to continue to work with vibration exposure. The record must be kept in suitable form and copies made available to the relevant enforcing authority if required. Employees also have the right to access their own personal health record provided they give reasonable notice.

Regulation 7(5)

Should surveillance confirm an identifiable disease or adverse health effect due to exposure to vibration, employers must ensure that a suitably qualified person notifies the employee concerned and provides them with information and advice regarding further health surveillance, including any health surveillance needed following the end of exposure.

The employer should also consider transferring the employee to alternative work where there is no risk of further exposure to noise. In addition, they should review the risk assessment and the adequacy of the control measures and provide for a review of the health of any other employee who has been similarly exposed.

Information, Instruction and Training, Regulation 8

Where employees are likely to be regularly exposed to vibration at or above an exposure action level, or the risk assessment indicates the health of some employees is at particular risk from their exposure to vibration, the employer must ensure that such workers and their health and safety representatives are provided with suitable and sufficient information, instruction, and training.

It should be provided in the most appropriate form which the employees can understand, and should be reinforced on a regular basis, taking account of any significant changes in the type or method of work carried out.

The information, instruction and training must include the following matters –

- the significant findings of the risk assessment, including any measurements taken, with an explanation of the findings
- how their likely personal daily exposures compare with the exposure action values and limit values
- the organisational and technical measures taken to reduce exposure to vibration at source
- the safe working practices to be adopted to keep exposure to a minimum
- why and how to report any signs of injury or ill-health caused by vibration
- the need to report any problems with work equipment causing unusually high vibration levels
- any entitlement to appropriate health surveillance and its purpose; and
- the collective results of any health surveillance already carried out in a form that does not identify any person.

Employers must also ensure that any person, be they employees or not, who is appointed to assist with any of the duties under these regulations (e.g., measuring magnitude of vibration, determining exposure levels etc.), has sufficient information, instruction, and training to be considered as competent for this purpose.

20. FATIGUE

Introduction

RMT defines fatigue as the decline in mental and/or physical performance that results from prolonged exertion, lack of quality sleep, or disruption of the internal body clock. The degree to which a worker is prone to fatigue is also related to workload. Work that requires constant attention, is machine paced, complex or monotonous, can increase the risk of fatigue.

A consensus view of scientists who study human performance and safety is that sleep is a powerful and vital biological need. Insufficient and disturbed sleep, chronic sleep loss and being awake for prolonged periods, increases the risk of errors and accidents. Research has shown that staying awake for 17 hours can make people perform as badly as being over the drink drive limit for driving on the road.

Fatigue, night work and/or shift-working arrangements have been cited as major contributory factors in numerous accidents and incidents including, for example, the 1988 Clapham Junction collision which killed 35 people, where staff fatigue caused by excessive overtime was identified as a contributory factor.

Circadian rhythms

This is a 24-hour cycle that virtually all bodily functions have, with a high and low point over the day; for example both body temperature and alertness have a cycle. Humans are programmed to sleep at night and be alert in the day. For shift workers, this means that it is very difficult to fall asleep in the day or keep awake at night.

The hours between 23.00 and 06.00 are when the body naturally wants to go to sleep, with maximum sleepiness between 03.00 and 05.00. Also, between 15.00 and 17.00 is another period when the body naturally wants to sleep. The internal circadian clock also receives external cues from changes between day and night, and between work and social life.

Health impact of shift work

Research has shown that gastrointestinal problems (such as indigestion, abdominal pain, constipation, chronic gastritis and peptic ulcers) and cardiovascular disruption (such as hypertension and coronary heart disease) is estimated to be greater in shift workers than day workers.

Amongst shift workers there is also increased susceptibility to minor illnesses such as colds, 'flu and gastroenteritis.

The International Agency for Research on Cancer has concluded that shift work which involves circadian disruption is “probably” carcinogenic to humans.

Reproductive problems in female shift workers have also been reported; the HSE writes “while the association for reproductive effects is less strong, it would be wise to consider shift work, especially night shifts, as a potential risk to reproduction”.

Shift work may also exacerbate existing health problems such as diabetes, asthma, epilepsy and psychiatric illness. Additionally, the effectiveness and potential toxicity of some drugs may vary depending on the time they are taken - as the dose response patterns of many drugs follow a circadian pattern.

Those who have sleep problems will experience excessive tiredness if working long shifts, as well as experiencing other symptoms such as insomnia, disrupted sleep schedules, reduced performance, and may experience irritability/depressed mood and suffer from difficulties with personal relationships. Unfortunately, treatment for these people is limited. Behavioural and pharmacological remedies can help alleviate symptoms; however, it should be remembered that for safety critical work, drugs, even from a pharmacist, can be problematic. Those finding themselves in this situation should always check beforehand whether any proposed medication will be safe for the work they do, including any driving, using machinery or other potentially hazardous work, and record what they are taking with their line management to get an agreed understanding for their use. Also, if driving, they need to be cautious if they are using medication to assist sleeping patterns.

If shift workers have difficulty sleeping during the day, the chances are they will have difficulty staying awake at work. The more tired/fatigued they are, the more likely they are to experience a “micro sleep” (this is an involuntary bout of sleep brought on by sleep deprivation that lasts for a few seconds). Some research indicates that the body may never fully adapt to shift work, especially for those who switch to a normal weekend sleep schedule.

Shift workers, particularly those who work at night, may be at risk of ill-health because shift work can disrupt the body clock (by interfering with the production of hormones by the body), disturb sleep and cause fatigue. In recognition of the particular risks to those working nights, the Working Time Regulations include a right for these workers to receive free health assessments.

Individual and social factors may also contribute to the risk of ill-health effects. Therefore, not everyone will experience or have the same pattern or degree of health problems. An individual's attitude, behaviour, lifestyle, age, sex and family history plus the conditions they work in, will all play a part.

Long hours also reduce the time available for family, socialising and relaxing, and so can drastically undermine the quality of life and impact health. Fatigue is also associated with increased accident rates and reduced productivity.

Causes of fatigue

The main work-related causes of fatigue include:

- Long shifts, particularly those that impinge on the normal hours of sleep (e.g., nights and early starts)
- Rapid turnarounds (e.g. insufficient time available between shifts for rest and recovery)
- High numbers of consecutive shifts
- Inadequate breaks within a shift
- Variability in the shift pattern (e.g. a rotating shift pattern that changes about once a week; short notice changes to roster; backward rotating shifts; variable shift start times in a sequence of consecutive shifts)
- Unplanned work (e.g., on-call duties, overtime and emergencies)
- Commuting time
- Workload and nature of task
- Features of the work environment (e.g. temperature, noise and vibration).

The level of work-related fatigue will be similar across individuals performing the same tasks. It should therefore be assessed and managed at the organisational level.

The main non-work-related causes of fatigue include:

- Domestic and family circumstances that may cause sleep disruption
- Health (e.g. sleep disorders)
- Individual differences (e.g. body clock and preferences for certain shifts, age)
- Strenuous activities (e.g. second jobs)
- Lifestyle (e.g. diet; alcohol, drugs and recreational activities)
- Stress (e.g. physical, mental or emotional response to external events)

The above are best managed at the individual level as the impact of different factors will vary considerably. Employers should ensure however that employees are aware of the (non-work-related) risks and know how and where to go for further information and support (e.g. General Practitioner or Occupational Health Department).

Legislation

Section 2(1) and 3(1) of HASWA places a general duty on employers to reduce risks as far as practicable, including risks from staff fatigue. Section 7 of HASWA requires employees to co-operate with their employer, by for instance ensuring they are adequately rested to do their work safely, and by reporting any concerns to their employer.

The Management of Health and Safety at Work Regulations 1999 place a legal duty on employers to manage any risks from fatigue that arise from work. Fatigue is a risk, like any other hazard, and therefore needs to be controlled through risk assessment and risk management.

The Working Time Regulations 1998 (as amended) (WTR) lay down the minimum legal requirements on how to organise working time. Simply complying with the Working Time Regulations alone is insufficient to manage the risks of fatigue. Nor can an employer claim that a person willingly worked additional hours or shifts. The employer must ensure that they are aware of the hours a person works and take action to prevent any risk to the worker or to others – as some patterns could comply with the WTR but still be potentially fatiguing.

For further information, please see the HSE guidance “Managing shift work Health and safety guidance”: <https://www.hse.gov.uk/pubns/books/hsg256.htm>, which explains how to comply with the law and contains a ‘fatigue risk index’.

In addition to the more general duties under HASWA and WTR, the Management of Health and Safety at Work Regs – the Railways and Other Guided Transport Systems (Safety) Regulations 2006 (ROGS), Regulation 25 also applies – as this includes a specific fatigue management duty on railway operators to make arrangements to manage the risks arising out of fatigue and long hours of their staff who carry out safety critical duties.

The ROGS superseded the railway group standards, GH/RT 4004 (a standard which incorporated the ‘Hidden Limits’ from the inquiry into the Clapham Junction rail crash, but which was insufficient to address all the known causes of fatigue).

ORR guidance ‘Managing Rail Staff Fatigue’ (MRSF)

See <https://www.orr.gov.uk/media/10934>

This ORR guidance is aimed at companies and individuals who have responsibilities for managing fatigue under the ROGS, regulation 25. Whether those being managed are safety critical or not, the same principles can be applied for responsibly managing fatigue in transport workers. The guidance explains what a Fatigue Risk Management System (FRMS) should look like and describes the roles and responsibilities, policies and procedures of all staff who work within the system. The guidance includes a nine-step approach tool that can be used in the management of fatigue (a nine-step approach which is also applicable to other industries).

Also see the ORR Good practice guidelines – Fatigue Factors, at: <https://www.orr.gov.uk/sites/default/files/2021-12/good-practice-guidelines-fatigue-factors.pdf> this specifies what fatigue factors should be considered where there is no role-specific guidance in place.

MRSF adopts a “triangulation” approach to assessing likely fatigue from a working pattern, the three stages of which are:

- Comparing the working pattern against good practice guidelines to identify potentially fatiguing features

- Using a bio-mathematical tool
- Getting feedback from staff on how fatiguing they actually find the work pattern

Fatigue is a particular concern in safety critical staff as they may not be aware that their performance is being compromised as there is no test for fatigue and so it can be difficult to detect. In workplaces where fatigue of workers is a factor there are likely to be increases in the likelihood of errors and adverse effects on performance, especially in tasks requiring:

- Vigilance and monitoring
- Decision making
- Awareness
- Fast reaction time
- Tracking ability
- Memory

All employers should have management arrangements to control the risks from staff fatigue. The complexity of those arrangements will depend on the type of work being carried out, whether work is safety critical or not, and overtime arrangements. The table below sets this out in relation to how to use the ORR’s MRSF guidance document:

Type of work	Likely significance of risks	Relevant sections of this from fatigue guidance
No shift work, no significant overtime, no ROGS safety critical work	Low	Section 4 “Basic fatigue controls”
Some shift work and/or significant overtime but no ROGS safety critical work	Medium to high	Section 5 “Fatigue Risk Management Systems”
ROGS safety critical work	High	Section 5 “Fatigue Risk Management Systems” AND Section 6 “Managing fatigue in ROGS safety critical work”

Fatigue Risk Management System (FRMS)

Key to the effective management of fatigue is the development of a FRMS. The ORR guidance sets out what a FRMS is, the features such a system should have, and how the FRMS should integrate with other risk control systems.

It is crucial that managers take a collaborative approach, involving staff and consulting other relevant parties such as trade unions in devising and setting up

controls to eliminate or reduce the factors which contribute to fatigue. This is the approach outlined by the ORR in the third prong of their triangulation approach.

Controls may include, for instance: shorter shifts; fewer successive shifts without a rest day; steps to reduce short-notice variations in planned start times; and enhanced fatigue education and training. Staff and their trade union representatives should co-operate with employers in ensuring that risks from fatigue are properly controlled.

The FRMS should have a number of components and stages:

- Fatigue Policy
- Organisational issues
- Planning and implementing
- Measurement
- Audit and review

Fatigue assessment tool

Some companies use a Fatigue Risk Index, which provides an estimate of likely levels of fatigue and risk associated with working patterns depending on a number of different data being inputted. This type of index is normally used for shift-working/rosters.

If a company is using an index, the safety reps should familiarise themselves with the system it uses and ask for training on the index, especially if they are negotiating or scrutinising rosters. For more information on fatigue risk indicators, please see HSE information on the development of a fatigue/ risk index for shift workers at <https://hse.gov.uk/research/rrhtm/rr446.htm>.

When using a fatigue assessment tool, it is important to understand and think carefully about what the output means, rather than to blindly assume it produces an authoritative “satisfactory/ unsatisfactory” decision. The use of a mathematical Fatigue Risk Index can be used by employers in a way that punishes some groups of workers, with reports that they are being utilised to cut shift lengths so that workers have to do more shifts per year in total. Working more shorter shifts can lead to higher levels of fatigue if there is an increase in journeys to work and less time away from work. It must also be remembered that fatigue modelling is merely one component of the fatigue management system and should never be used as a stand-alone product.

According to the ORR Guidance:

The Fatigue Index represents the estimated probability, expressed as a percentage, that a person working the pattern concerned will feel very fatigued at some point during the shift. A fatigue index of 10 therefore means that on average, 1 in 10 people working that pattern are likely to feel very tired. Although this is clearly more desirable than a fatigue

index of 50 (meaning half the people are likely to feel very tired), it does not mean that a fatigue index of 10 is risk-free. But it does indicate which of the two working patterns is likely to be less tiring.

To summarise as regards the fatigue index, the ORR writes “fatigue assessment tools cannot model all the factors which affect fatigue”.

Fatigue policy

At the heart of the FRMS there should be a statement of the organisation’s overall policy on fatigue. The policy should recognise that the effective management of fatigue is a collaborative process. Senior management should be committed to involving staff and the trade unions in devising, implementing and monitoring effective fatigue risk control measures. There must be a “buy-in” from staff, and the FRMS policy should recognise that the organisation may need to invest time upfront to help “sell” the need for, and benefits of, the co-operative FRMS approach to staff and their representatives.

The policy should also explain the company’s overall commitment to managing fatigue, include the status of any relevant company standards and limits, and their relationship to any relevant negotiated agreements with trade unions, for instance terms and conditions of employment.

Additionally, the policy should explain how the organisation will collect and use data on fatigue and its effects, including the fatigue reporting system for reporting errors, adverse events and concerns which could have a fatigue element, staff education and training on fatigue and explain that there will be a periodic review of fatigue controls, and if there is reason to doubt their effectiveness what will be done to address this.

Input from trade unions

Key to ensuring that fatigue risks are properly controlled in the rail industry is input from the trade unions via their Health and Safety reps. Fatigue risks cannot be properly managed alone so employees and trade unions have their own important responsibilities in controlling the risks from fatigue.

Trade unions should, for example:

- Co-operate with an employer’s reasonable efforts to ensure that risks from staff fatigue are adequately controlled
- Make reasonable efforts to ensure that fatigue risk management good practice is taken into account by their representatives during negotiations on working patterns and other issues having a bearing on the control of fatigue risks
- Consider whether pay structures could inadvertently be encouraging fatigue – is low pay encouraging excessive overtime?

- Examine whether existing terms and conditions of service have taken full consideration of possible fatigue effects
- Receive training for negotiating working patterns
- Ensure that the employer carries out a ‘reality check’ by seeking staff feedback on working patterns
- Ensure that an open “just” culture exists whereby if staff feel too tired to work safely (e.g. a new baby at home keeping them awake) they will not be punished for declaring this so that alternative arrangements can be made.

Safety critical work

If the employer’s undertaking involves safety critical work then, in addition to the FRMS, there will need to be applied the requirements of the ROGS regulation 25, which states:

Every controller of safety critical work shall have in place arrangements to ensure, so far as is reasonably practicable, that a safety critical worker under his management, supervision or control does not carry out safety critical work in circumstances where he is so fatigued or where he would be liable to become so fatigued that his health or safety or the health or safety of other persons on a transport system could be significantly affected.

The regulation also requires the undertaking to have a “controller of safety critical work”, who should establish effective arrangements for managing the risks arising from fatigue from safety critical workers. This process shall follow the following steps:

- (1) Identifying those safety critical workers affected
- (2) Setting standards and designing working patterns
- (3) Limiting exceedances
- (4) Consulting with safety critical workers
- (5) Recording the arrangements
- (6) Providing information to safety critical workers
- (7) Monitoring
- (8) Taking action when safety critical workers are fatigued
- (9) Reviewing the arrangements

The ORR guidance provides detailed commentaries on each of these nine stages. RMT representatives should be fully involved in stage 2 – setting standards and designing working patterns; stage 4 – consulting with safety critical workers; stage 6 – providing information to safety critical workers; stage 7 – monitoring; and stage 9 – reviewing the arrangements. The guidance concludes with a series of appendices which give important information on a number of issues: fatigue risk assessments, travel time, features of a positive safety culture, and fatigue reporting.

In summary, the key principles in fatigue are as follows:

- Fatigue needs to be managed, like any other hazard and risk
- It is important not to underestimate the risks of fatigue, for example, the number of errors, accidents and injuries has been found to be higher on night shifts, after a succession of shifts or when shifts are long and there are inadequate breaks; this rises with increasing shift lengths over eight hours and increases over successive shifts, especially if they are night shifts
- The legal duty is on employers to manage risks from fatigue, irrespective of any individual's willingness to work extra hours or preference for certain shift patterns for social reasons. Compliance with the Working Time Regulations alone is insufficient to manage the risks of fatigue
- Changes to working hours need to be risk assessed and, where change is required, then the changes to be notified in advance
- Employees and RMT representatives should negotiate and agree rosters and be consulted on working hours and shift patterns. However, note that where employees state a preference for certain shift patterns that are potentially unhealthy and may cause fatigue, then these preferences must be managed to ensure the risks to workers are suitably controlled
- A policy must be developed that specifically addresses and sets limits on working hours and patterns, overtime and shift-swapping, and which guards against fatigue. Then implement the policy and make arrangements to monitor and enforce it; this may include developing a robust system of recording working hours, overtime, shift-swapping (shift exchange) and on-call working
- Problems with overtime and shift-swapping may indicate inadequate resource allocation of staff or just a shortage of staff with vacancies unfilled
- How long people have been awake must be a key consideration, as long journeys to work mean staff may become unfit to work later in the shift
- Age: older workers are better at early morning shifts, but struggle with lates/nights
- There are many different shift work schedules, and each schedule has different features. The sheer diversity of work and workplaces means that there is no single optimal shift system that suits everyone. However, a planned and systematic approach to assessing and managing the risks of shift work can improve the health and safety of workers. A guiding principle must be a shift system of 'rotation forward not back'
- Sleep disturbances can lead to a 'sleep debt' and fatigue. Night workers are particularly at risk of fatigue because their day sleep is often lighter, shorter and more easily disturbed because of daytime noise and a natural reluctance to sleep during daylight. If an individual loses one hour's sleep a day/night, then over the week they will have lost seven hours - and that is a full 'night's sleep'; do that over a three-month period and you have lost twelve 'nights of sleep'.

For shift working to be successful, you need to maintain a satisfactory level of productivity and safety. Fatigued shift workers may perform less well than those working standard daytime hours, especially during periods of low alertness. The consequences of this could range from relatively minor events to serious accidents.

Road vehicle transport/bus and taxi

In the context of vehicle control, fatigue can be accompanied by poor judgement, slower reactions, and decreased skill levels. Importantly, fatigue can impair a driver's judgement of his or her own state of fatigue. Driver fatigue is one of the biggest health and safety concerns within the road transport sector.

Well-documented indicators of driving fatigue are:

- Not feeling refreshed after sleep
- Falling asleep at work
- Loss of concentration at work, leading to increased errors, such as drifting out of lane when driving
- Poor visual perception in poor light/weather conditions
- The need for extended sleep during days off.

Driver fatigue is associated with very poor/poor self-rating of quality of sleep, drinking three or more caffeinated drinks daily, and driving more than ten hours a day.

Research shows that a considerable proportion of vehicle accidents are sleep related and it is believed that up to 20% of serious accidents are caused by fatigue. There are strict rules governing the amount of hours that PSV/PCV and HGV drivers can work; however, these still do not prevent fatigue from occurring.

For information on drivers' hours see: <https://www.gov.uk/drivers-hours>

HGV/PSV drivers who drive only in the UK (under 50 miles) are governed by UK domestic driving limits, whereas those who travel within the EU or drive vehicles over 3.5 tonnes need to abide by EU limits which are more stringent than UK domestic laws. Currently, the maximum hours at the wheel without a break for UK PSV/HGV drivers is 5.5 hours, whereas the EU limit is an hour less at 4.5 hours.

Fatigue may be more of a problem for coach drivers due to longer driving distances on motorways but given the number of distractions and high level of concentration needed by urban bus drivers, fatigue is also an issue for this group of workers.

Fatigue can be effectively managed by a Fatigue Risk Management System (FRMS). This is a scientifically based data-driven system which manages employee fatigue in a flexible manner appropriate to the level of risk exposure and the nature of the operation. A FRMS can be used in addition to prescriptive hours of work limitations. The traditional method of mitigating driver fatigue has been to limit a driver's time at the wheel.

Car drivers are generally encouraged to take a 15-minute break every two hours of driving, and the same should be applied to bus and coach drivers. What also needs to be taken into consideration is that drivers have other duties besides driving. For the most part they must also check the vehicle for defects and, in the case of coach drivers, emptying toilet tanks is another task that may need to be done.

In conclusion, fatigue is a serious issue that needs to be managed effectively. Any FRMS should include consultation with union reps who will look at rosters, time off and risk assessments to ensure that fatigue is being managed properly. The result of not managing fatigue correctly is a reduction in safety which in turn can lead to accidents – some of which are devastating and fatal.

21. DEALING WITH STRESS AT WORK

Stress at work is a significant issue for many RMT members as they face cuts to services, threats to job security and increases in the cost of living.

HSE defines stress as ‘the adverse reaction people have to excessive pressures or other types of demand placed on them’. Workers feel stress when they cannot cope with pressures and other issues. Although stress itself is not a disease, it is recognised that excessive or prolonged stress can be a cause of mental and physical illness.

There is some overlap between work-related stress and mental ill-health. However, the key difference is the causes and the way in which they are treated. They may share similar symptoms – work-related stress can cause mental ill-health or aggravate and become entangled with an existing mental ill-health problem; but they can also exist independently.

Legislation

There are no specific regulations aimed at controlling stress, but employers do have legal duties, including under the HASWA, section 9, general duties of employers, and under the Management of Health and Safety at Work Regs in relation to control of risks at work. The HSE states that “work-related stress should be treated as any other workplace hazard; it is subject to the Management of Health and Safety at Work Regulations 1999 and therefore a risk assessment is required”.

In the absence of specific legislation on stress, there are the HSE Management Standards: <https://www.hse.gov.uk/stress/standards/>. The TUC in conjunction with HSE has produced this joint guidance on preventing stress using the standards: <https://www.tuc.org.uk/sites/default/files/tacking-workplace-stress-guide.pdf>

The Office of Rail and Road, as the Health and Safety regulator for the railway industry, has confirmed that it will follow the Stress Management Standards.

The Management Standards group the principal causes of work-related stress into six key areas:

Demands – includes issues like workloads, work patterns and the work environment

Control – how much say the person has in the way they do their work

Support – includes the encouragement, sponsorship and resources provided by the organisation, line management and colleagues

Relationships – includes promoting positive working to avoid conflict and dealing with unacceptable behaviour

Role – whether people understand their role within the organisation and whether the organisation ensures that the person does not have conflicting roles

Change – how organisational change (large or small) is managed and communicated in the organisation.

Employers should have a thorough understanding of how the above apply in their organisation - and managers at all levels should be aware of the management standards and understand how they apply in practice.

If an employer introduces support for people with stress-related conditions instead of prevention measures, it should be insisted that they use the HSE management standards, as the standards adopt an “organisational” as opposed to an “individual” approach to tackling stress and to issues relating to job demands and job quality.

As a Health and Safety representative you can help members to avoid stress in the workplace by:

- Referring your employer to the HSE Management Standards <https://www.hse.gov.uk/stress/standards/> for managing stress in the workplace using a step-by-step risk assessment approach
- Reviewing your employer’s stress policies and, if there is no policy in place, work with your employer to implement a policy to protect employees
- Ensuring that your employer considers the risks to employees by carrying out risk assessments
- Encouraging your employer to tackle risks at source – if there are issues creating stress for employees, try to resolve these with the employer in the first instance
- Making sure that the employer takes account of the individual – some individuals may be more vulnerable to stress so ensure that any risk assessment highlights this
- The employer must remove hazards if possible – where it is possible to work collectively to remove problems that are causing stress, aim to do so
- If the risk remains, ensure that your employer controls the risk/exposure and protects the employee.

If you cannot avoid stress in the workplace, or you are unable to resolve the issue:

- Advise members to explain to employers the damage that is being done to their health. If an employer is not put on notice of the risk of an employee being at risk of suffering from a “recognised psychiatric condition” as distinct from stress and anxiety, then a claim cannot succeed
- Ensure that your member seeks advice and support from their GP and/or Occupational Health Department. If employees have access to an independent Occupational Health Dept members should be encouraged to use it.

The stress risk assessment must meet the legal standard of 'suitable and sufficient', and safety reps should ask for it to be revised if it does not meet this standard.

If stress cannot be avoided in the workplace, or safety reps are unable to resolve the issue, advise members to explain to employers the damage that is being done to their health and encourage members to keep a written record of any problems and send this to management, so that employers cannot say they were not aware.

If stress issues are widespread across the area:

- conduct a stress survey. It is best to do this jointly with the employer as they may then be more likely to take heed of the results, but, if not possible, then conduct a trade union survey
- Place stress as a standing item on the agenda of Safety Committees and ensure an effective stress control policy is in place. Use discussions in the committee to ensure the policy and its effectiveness are monitored.

Sickness

Managers should use return to work interviews to consider the issue of stress and, if this is indicated on a medical certificate, consider a formal stress risk assessment before a return to work takes place.

Raise and record instances of stress and stress-related health symptoms (including on sick certificates).

At safety committee meetings analyse sickness and absence data, referrals to Occupational Health and exit interviews, and stress audits/stress survey results for indications of stress.

22. WORKING IN EXTREME WEATHER

Working in Extreme Heat

The impact of climate change means that we are increasingly seeing very high temperatures in the summer months.

To address this RMT safety reps should ensure that their employer plans for summer temperatures before they become a problem, meaning that employers have a working in hot weather policy and that, in consultation with their RMT safety reps, they risk assess the risks of temperature or heat and have control measures in place to remove or reduce these risks.

Legislation

In offices or similar environments, the temperature in workplaces must be reasonable. But there is currently no law for maximum working temperature, or when it is too hot to work, although employers still have a legal duty to provide a “reasonable” temperature. The Workplace (Health, Safety and Welfare) Regulations 1992, regulation 7, states that “during working hours, the temperature in all workplaces inside buildings shall be reasonable.” How this regulation is applied depends on the nature of the workplace.

Under the Health and Safety at Work Act 1974 employers have a general duty to ensure the health, safety and welfare of their employees and under the Management of Health, Safety, and Welfare Regulations the employers duty is to assess and control risks from work.

Along with the TUC, RMT has for many years campaigned for maximum workplace temperatures, demanding a change in the law so that employers must attempt to reduce temperatures if they get above 24°C and workers feel uncomfortable.

These are not impossible demands; such guidance exists around the world. For example, in the United States regulations say working temperatures should not go beyond 24° C; Spanish guidelines state that working temperatures must not go beyond 27°C indoors or 25°C for physical activity; in Germany, 26°C is generally considered the maximum for indoor work; in China, when temperatures reach 37°C, outdoor work is banned during the hottest three hours of the day, and at 40°C it must stop altogether.

Not having such protections in the UK puts workers at risk:

Heat stress

This is when the body’s means of controlling its internal temperature starts to fail. As well as air temperature, factors such as work rate, humidity and clothing worn while working may lead to heat stress.

Heat Exhaustion

This is when a person becomes very hot and starts to lose water and salt from their body, leading to symptoms of feeling sick, faint and sweating heavily - signs of which are dehydration, muscle cramps, rashes, sunburn, fainting and loss of concentration leading to accidents.

It will take at least 30 minutes to cool the body once it has overheated; there will be no long-term complications if the person is taken to a cool place to recover, given water to drink and unnecessary, heavy clothing is removed.

Heat stroke

In the most extreme cases of heat exhaustion, heat stroke can occur – the symptoms of which include convulsions and loss of consciousness which can lead to death. Because of this, heat stroke requires immediate medical treatment.

Skin Cancer

Outdoor workers are three times more likely to develop skin cancer. The HSE says that 4,500 people are diagnosed with skin cancer every year because of outdoor working. Prolonged exposure to the sun can also lead to skin ageing more rapidly. In the long-term, eyesight problems are also associated with radiation exposure and glare.

Some workers may be particularly vulnerable to the effects of extreme heat:

- *Pregnant women*
During pregnancy, the body must work harder to cool down both the woman's body and that of her unborn baby. This means a pregnant woman is more likely to get heat exhaustion or heat stroke compared with other workers. Pregnant women are also more likely to become dehydrated.
- *Menopausal women*
For women experiencing the menopause hot weather is one of the main triggers for hot flushes – more intense ones too.
- *Workers over 65*
- *Obese workers*
- *Disabled workers*
- *Those on certain medication*

Indoor work

As the temperature goes up people sweat without moving, stress levels rise, concentration levels fall, mistakes increase, productivity goes down and accident levels rise.

If workers are doing manual work, there is a greater loss of fluids leading to dehydration and potential heat stress as the core body temperature rises. All

these problems become worse if the humidity is also high, as the body is unable to cool itself through sweating as the air is already loaded with moisture.

The Workplace (Health, Safety and Welfare) Regulations 1992 state that thermometers should be available at convenient distances from every part of the workplace to enable temperatures to be measured.

Risk assessment control methods could include:

- Using fans or other mechanisms to cool the air, as well as adequate ventilation (if temporary cooling units are used these should be replaced on a permanent basis to avoid annual disagreements over their supply)
- Windows being shaded to deflect direct heat and glare which is a relatively cheap method to use
- Moving workspaces away from windows and other heat sources
- Using blinds to block out the sun
- Relaxing dress codes and uniform policies
- The provision of free cold drinks
- The ability to take extra breaks, preferably in cooler areas
- Adjusting shifts to avoid travelling in peak heat.

Outdoor work

There is an increased risk from sunstroke, sunburn and heat exhaustion particularly when work is physically strenuous. Heat stress is more likely to occur if the air is humid/still or there is direct heat radiation, and the exposure is for long periods.

Employers must work with safety reps to introduce measures to protect their staff who work outdoors when temperatures rise, including:

- Considering halting work altogether under extreme conditions
- Considering rescheduling work at cooler times of the day
- Educating workers about the early signs of heat stress
- Changing work practices, so less outside work needs to be done during the hottest months and at the time of day when the sun is at its highest
- Allowing staff to take plenty of breaks and providing a supply of preferably cool drinking water, to avoid dehydration by replacing water lost following sweating
- Providing canopies or coverings over open areas and shaded areas for breaks
- Providing lightweight, close woven fabric protective clothing with long sleeves
- Providing lightweight hats, which are brimmed. If hard hats are provided, that these have neck protection.

Workers should be involved in the selection of PPE. Some tasks may necessitate the wearing of vapour impermeable PPE, but, if not, this should be avoided, as clothing must be such that heat can escape.

Providing such clothing is more effective than providing sunscreen, which is also difficult to apply in dusty and dirty conditions and harder to monitor its correct usage. Also, sunscreen may lure workers into a false sense of security. However, sunscreen will still be needed for the face - and for hands if gloves are not worn.

Employers should provide sunscreen and advice on the need for protection. Sunscreen of at least 20spf (sun protection factor), although preferably at least 30, with both UVA and UVB (ultraviolet) protection, to be applied an hour before exposure and re-applied every 2 hours. A “more is better” approach is recommended to the application of the sunscreen. Sunscreen creates a barrier between the worker and the risk, and as such should be considered personal protective equipment.

Driving

The heat can be dangerous for workers whose jobs involve driving, as any driver suffering from fatigue is a risk to themselves and other people. Vehicles used for long journeys should be temporarily taken out of use if they cannot sustain a reasonable temperature, for example if they do not have air conditioning.

Ability to stop work on health and safety grounds agreement

Safety reps should seek to agree with their organisations a procedure whereby the worker can stop work on health and safety grounds, as follows:

- Create a safety check list that the worker can fill out prior to the start of a job/process
- Include an element around environmental conditions incorporating heat
- The document to contain a stop work element that employee can sign off
- Ensure supervisor is informed, resolution is discussed.
- Task/job is halted if agreed hot weather will cause detrimental effects to health
- Conditions are reviewed by management and union reps.

If such a procedure cannot be agreed, please refer to advice below around stopping work on health and safety grounds and contact your Regional Organiser for advice.

For advice on Stopping work on Health and Safety grounds see RMT “Serious and Imminent Danger” guidance,

<https://www.rmt.org.uk/news/publications/serious-and-imminent-danger-booklet/>

Working in cold weather

Legislation

Workplace temperatures are governed by the Workplace (Health, Safety & Welfare) Regulations 1992 which place a duty on employers to ensure that there is a ‘reasonable’ temperature.

In relation to cold weather this is further supported by the Approved Code of Practice (ACOP) which states that a minimum temperature should be 16°C for sedentary work or 13°C for more vigorous activities.

There is no minimum stipulated temperature for outdoor working, but the Management of Health and Safety at Work Regulations 1999 require employers to assess the risk to health and safety of their employees arising out of their work activity. Employers should carry out a thermal risk assessment for outdoor activities.

Thermal risk assessment

A thermal risk assessment should be carried out during cold weather. When working in an environment below 16°C, then control measures should be put in place to mitigate the harmful effects of working in the cold. PPE should be considered as a last resort if thermal comfort cannot be achieved by any other control measures.

Regular breaks in a warm environment need to be provided for people working in cold conditions with access to warm drinks.

Health risks

There are a variety of health risks associated with being cold for long periods of time including:

- Non-freezing injuries (for example trench foot): these injuries involve damage to the soft tissues, nerves, and vascular extremities
- Freezing injuries, for example frostbite (damage to skin and tissue): this can include damage to any part of the body, but the extremities, such as the hands, feet, ears, nose and lips are most likely to be affected
- Chilblains
- Hypothermia
- Frostnip
- Vibration white finger
- Back and other muscular injuries.

Uncomfortably cold working conditions can lead to lower work efficiency and higher accident rates. Cold impairs the performance of complex mental tasks.

Manual tasks are also impaired because the sensitivity and dexterity of fingers are reduced in the cold. At even lower temperatures, the cold affects the deeper muscles resulting in reduced muscular strength and stiffened joints. Mental alertness is reduced due to cold-related discomfort. For all these reasons, accidents are more likely to occur in very cold working conditions.

Outdoor workers may be more at risk from developing problems due to the combination of cold air temperatures and strong winds, the 'wind chill factor', and wet conditions.

Some workers may be particularly vulnerable to the effects of cold weather:

In general, people in good physical health are less susceptible to cold injury. Whilst anyone working in a cold environment may be at risk, the following conditions may make the risk of cold injury greater:

- Old age
- Those with diseases of the blood circulation system
- Injuries resulting in blood loss or altered blood flow
- Previous cold injury
- Respiratory diseases, such as asthma or bronchitis
- Fatigue
- Smoking
- Use of certain drugs or medication
- Workers suffering from breathing problems such as emphysema and heart/circulation conditions may be more sensitive to cold working.

Indoor work

The Workplace (Health, Safety and Welfare) Regulations 1992 state that workplace temperatures 'must be reasonable' and that there should be a sufficient number of thermometers provided in indoor workplaces.

In most working environments it should be easy to achieve the legal minimum temperature in indoor workplaces of 16°C or 13°C (where the nature of the work is physical), through the provision of general heating systems and/or stand-alone heating systems and the protection of workers from drafts. However, where the work area must be kept cold due to food hygiene laws or technical requirements, it is far better to keep the food or product cold rather than the worker. The ACOP explains that where the legal temperature is impractical because of a cold process, all reasonable steps should be taken to achieve a temperature which is as close as possible to comfortable.

Outdoor work

The following measures should be taken to protect outdoor workers:

- Insulation, where possible, of the handles of handheld tools
- Special precautions in the case of people working alone in the cold

Keeping warm

Factors important for heat production include:

- Food intake. Make sure to eat properly and frequently; balanced meals and adequate liquid intake are essential to maintain body heat and prevent dehydration. Working in the cold requires more energy than in warm weather because the body is working to keep the body warm. It requires more effort to work when wearing bulky clothing and winter boots especially when walking through snow
- Fluid balance. Drink fluids often, especially when doing strenuous work. For warming purposes, hot non-alcoholic beverages or soup are suggested. Caffeinated drinks such as coffee should be limited because they increase urine production and contribute to dehydration. Caffeine also increases the blood flow at the skin surface which can increase the loss of body heat
- Physical activity
- Shivering - a reflex reaction, which increases the body's heat production (up to 500%) when necessary. This reaction is limited to a few hours because of depletion of muscle glycogen and the onset of fatigue.

Heat retention

Heat retention and tolerance to cold also depend on the body's structure, certain reflex and behavioural mechanisms that retain heat within the body, as well as what you are wearing.

Factors that influence heat retention are:

- Size and shape of the body (surface to volume ratio)
- Layer of fat under the skin
- Decreases in the volume of blood flow through the skin and outer parts of the body
- Insulation (layering and type of clothing).

How to dress warm

While PPE should be seen as a last resort in protecting workers from the effects of cold, clothing can help protect the body against the harmful effects of low temperatures.

Effective and suitable PPE should be provided for cold weather work:

- Clothing should be worn in multiple layers which provide better protection than a single thick layer. The air between the layers provides better insulation than the clothing itself. Several layers are best to adjust clothing depending on the work being done. The outer layer of clothing should be waterproof, and any safety shoes should have slip-resistant soles

- It is important that protective clothing is waterproof and ‘breathable’ (as manual work can produce sweat which can contribute to rapid cooling of body temperature)
- The inner layer should provide insulation and be able to “wick” moisture away from the skin to help keep it dry. Thermal underwear made from polyesters or polypropylene is suitable for this purpose. “Fishnet” underwear made from polypropylene wicks perspiration away from the skin and is significantly thicker than regular underwear. It also keeps the second layer away from the skin
- Almost 50% of body heat is lost through the head. A wool knitted cap or a liner under a hard hat/uniform hat can reduce excessive heat loss
- Personal preference maybe to wear one pair of thick, bulky socks or two pairs – one inner sock of silk, nylon, or thin wool and a slightly larger, thick outer sock. Liner socks made from polypropylene will help keep feet dry and warmer by wicking sweat away from the skin. However, as the outer sock becomes damper, its insulation properties decrease. If work conditions permit, have extra socks available so you can dry your feet and change socks during the day. If two pairs of socks are worn, the outer sock should be a larger size so that the inner sock is not compressed
- If footwear is provided, it needs to be suitable for standing for long periods of time and preferably made of leather as it is porous and allows sweat to escape. Rubber soles provide more comfort for standing for any period of time.

If the temperature in the workplace cannot be regulated to provide thermal comfort, i.e. with winds blowing through stations which reduce the ambient temperature even more, then staff should be allowed adequate breaks to warm themselves.

Regular breaks

Along with proper clothing, regular breaks being taken in a warm building, with access to warm drinks, is an effective method of ensuring better recovery and efficiency. Food containing plenty of carbohydrates and fats for energy and warmth prior to beginning work can also help.

Wet clothing should be removed as quickly as possible as it can cause both accelerated heat loss and impair movement.

There should be provision of a drying room where wet clothes can be dried.

Driving

Employers should stock up on salt and grit to keep the yard and access points as free from ice as possible.

Refresher training should have been received on defensive driving in winter, covering points such as checking lights, wipers, and tyres before setting out, checking the

weather forecast before starting a route and carrying a shovel, flask of hot drink and a blanket on board. It should be made clear that staff can abandon a journey if it is not safe to continue.

Stopping work on Health and Safety grounds

Section 44 of the Employment Rights Act 1996 provides workers protection from detriment (i.e. dismissal, disciplinary action or a pay cut) if they withdraw from and refuse to return to a workplace that is unsafe. Workers are entitled to remain away from the workplace if – in their opinion – the prevailing circumstances represent a real risk of “serious and imminent danger” which they could not be expected to avert.

For more information see RMT “Serious and Imminent Danger guidance”, <https://www.rmt.org.uk/news/publications/serious-and-imminent-danger-booklet/>

23. CRIMINAL INJURIES COMPENSATION CLAIMS/CIVIL ASSAULT CLAIMS

If an RMT member is assaulted at work, then they may be able to claim compensation from the Criminal Injuries Compensation Authority (CICA). They may also be able to claim compensation from their employer and against the person who assaulted them, but the latter is a claim that would not usually be successful as the assailant may well not have the money to pay compensation and experience has shown that, in a claim against an individual even where a judgement is obtained, compensation is unlikely to be paid.

CICA claim

An application form must be submitted within two years of the incident. An RMT member will qualify for compensation if they have been injured as a result of a crime of violence and they satisfy the minimum qualifying criteria, which is that the injury that they have suffered qualifies for a award of compensation of £1,000 or more. The incident must be also reported, preferably to the police, but at least to the employer or other appropriate authority. If the police decide to prosecute, a member must assist the police in any court proceedings against the assailant.

Civil assault claim

A claim must be brought within three years of the incident. An RMT member may be able to pursue a successful claim for compensation if they can prove that the assault was foreseeable, and the employer should have taken steps to prevent the assault occurring.

Typical claims could be made against employers where assaults have been committed by passengers and other public transport users.

It should be noted that compensation cannot be received twice for the same incident/injury, but members should be advised in respect of all potential claims

24. ADVICE ON MAKING A CLAIM WHEN A MEMBER SUSTAINS PERSONAL INJURY

This chapter is intended to provide some guidance about the types of claims that could be brought by RMT members when health and safety is breached by the employer or where the employer is responsible for their injury/health condition due to their negligence.

What types of claims could employees bring?

Employees may be able to bring either a claim for personal injury caused by an accident at work or, alternatively, a claim for an industrial disease or a health condition which was caused or made worse by their work. Examples of the latter are work related upper limb disorder and an asbestos related condition.

What time limits apply to claims?

The time limit for personal injury claims is three years from the date of the accident or when the member became aware or ought to have been aware that a health condition was caused or made worse by their work

A Court has a discretion to extend the time limit in certain circumstances. Legal advice should be sought from the RMT legal department on this.

How will a claim succeed?

If there is no legal blame for an accident or condition, then there is no claim. Members must prove “on the balance of probabilities” that the claim or injury was caused by or contributed materially to by the fault of their employer in order to succeed.

What we need to prove to succeed in a claim:

- i) That the employer owes a duty of care to an employee
- ii) That the employer breached the duty of care
- iii) That the breach of duty caused the injury
- iv) That the accident or injury was foreseeable

For more information on the above see the following,

i) Duty of care

It is accepted that an employer owes their employees a duty of care

ii) Breach of duty of care

Breach of duty: There are two sources of the law we can use to show that an employer has breached their duty of care:

There are two sources of the law we can use to show that an employer has breached their duty of care:

Common law and Statutory law

Common law

This is based on law that has built up over the years from previous cases. It includes, amongst others, duties to ensure:

- A safe place of work
- Safe plant and equipment
- A safe system of work
- Adequate supervision and instruction
- Competent fellow employees

Statutory law

This is legislation engaged by parliament in the form of Acts of Parliament. The key piece of legislation is the Health and Safety at Work, etc. Act 1974 (HASWA) and the Regulations that have been made under HASWA such as the European six pack.

Where an employer is in breach of one of their statutory duties and this leads to an accident or someone becoming ill, there may be a legal claim. The most significant of these regulations are:

The Management of Health and Safety at Work Regulations

These regulations impose the following obligations:

- A duty to assess risks to employees
- A duty to train employees
- A duty to inform employees
- A duty on employees to take reasonable care in their work.

The Manual Handling Operations Regulations

These regulations impose where possible:

- Risks assessing all jobs done by employees involving manual handling
- Avoiding manual handling tasks where possible
- Reducing the risk of injury to an employee through manual handling to the lowest level reasonably practical if it cannot be avoided altogether

The Workplace (Health and Welfare) Regulations

These regulations impose duties to:

- Ensure that the workplace is safe to include provisions to cover ventilation, reasonable conditions of floors, adequacy of workstations and seating arrangements

Advice on Making a Claim When a Member Sustains Personal Injury

The Personal Protective Equipment Regulations

These regulations state:

- If a dangerous activity cannot be avoided altogether then the employer must put mechanisms and protection in place for the employee to prevent injury, such as head protection, eye protection, gloves or footwear.

The Display Screen Equipment Regulations

These regulations state:

- That the employer must risk assess the employees' workstation
- Employees can suffer ill health from poor workstation organisations, working environments, posture and inappropriate working methods.

iii) **A link between the breach and the industry:**

If we can prove that the employer has breached one of the above statutory or common law duties then we must show that there is link between the breach and the injury which has been caused.

- In accident cases, this is more straightforward, i.e., a missing guard causes a severed finger
- In disease cases this is more difficult, and the link generally will need to be dealt with by a medical expert

iv) **Foreseeability**

To succeed in a claim we also need to prove that the employer could have foreseen that the injury could have been caused by action or lack of action:

To show this, we look at:

- What happened – was an accident or illness foreseeable?
- Reports of previous accidents/near misses
- Risk assessments
- Reports of complaints

What to do in the event of an accident:

1. Carry out an early and thorough investigation into the cause of the accident and where possible assist the member in completing the accident/incident report form. Please note that the right to investigate has some limitations, particularly in the case of a serious incident
2. Ensure the key witnesses' names and addresses are recorded and kept. This can be eyewitnesses and witnesses to previous similar accidents and safe working practices.
3. Ensure that the accident is recorded correctly in accident reports. Provide as much information as possible as to what happened. The cause of the accident should be recorded.

4. Locate/retain relevant documents. Examples of relevant documents will be accident report forms, risk assessments, health and safety minutes, safe system of work documents and RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations). For more information see HSE leaflet “A brief guide to reporting accidents and incidents at work” <https://www.hse.gov.uk/pubns/indg453.pdf>,
5. Take photographs if necessary, to provide evidence of the cause of the accident, location, relevant equipment etc.
6. Safety Reps should ensure that the member is immediately referred for free legal advice about making a claim for compensation.
7. Safety Reps should keep all documentation regarding the member’s accident as it is likely that this will be requested by the member’s legal advisor at a later date. The Safety Rep is encouraged to contact the member’s legal advisor or Thompsons at the outset.
8. It should be remembered that some accidents occur outside the member’s usual place of employment. These accidents should be treated in the same way. A member may suffer an accident whilst not at work. Such accidents should still be referred for legal advice using the above procedure.

How to make a claim

For all accidents that members are involved in, you should encourage members to pursue a claim and to ensure that the accident is recorded in the accident book.

RMT – Methods of making claim

- Accident Claim (LI) forms are available from your Branch Secretary or,
- RMT Helpline – call 0800 587 7516

What happens when a claim is made?

The purpose of this section is to summarise the legal process which RMT Solicitors will follow once they have received a claim for an accident or disease on behalf of a member. Please remember that each case is different, and that this advice is intended only to be a brief outline of the process which would be followed in a typical case. We refer here to cases involving accidents, but the process is very similar in disease cases.

- The RMT member will usually be contacted by phone on the day the case is received to confirm receipt of their papers and if possible, to arrange an appointment either by telephone or face to face at a union office or in Solicitors’ offices, whichever is convenient for the member
- At first meeting our Solicitors will discuss with the RMT member the circumstances of the accident and the law that will apply to the case. Usually, they will be able to give the member a preliminary indication of whether or not they feel they have a good case

Advice on Making a Claim When a Member Sustains Personal Injury

- After the meeting, the Solicitor will begin to gather evidence. This could include writing to witnesses and trying to obtain any documents relating to the accident, such as the accident report form or any pre-accident risk assessments. A Health and Safety Rep can play a very useful role at this stage in helping to obtain evidence
- At the same time the solicitors will write to the other side, known as the Defendant, and put the claim to them. This letter is known as the “letter of claim”. It sets out what happened, why we are saying it was the Defendant’s fault, gives brief details of the injuries suffered and asks the Defendant to provide copies of the relevant documents they have
- Within 21 days the Defendant must acknowledge receipt and confirm who will be dealing with the matter on their behalf, for example an insurance company or a firm of Solicitors
- The Defendant then has 3 months to investigate the claim. At the end of that period, they must confirm whether or not they admit that the accident was their fault. If they do not accept this, then they should say why they are not at fault and provide copies of all documents in their possession which are relevant to the case. If they refuse to supply such documents, then in certain circumstances the Solicitor can apply to court for an order to force them to do so
- Whilst the Defendant is investigating, it may be that the solicitor will be getting medical evidence to support the member’s case. The exact stage when medical evidence is obtained will vary from case to case and depends on a number of factors, for example whether the member’s treatment is ongoing
- At the same time, the solicitor will be collating details of the financial losses and expenses and “special damages” which the member has incurred, and will advise them to keep receipts and wage slips
- If the Defendant denies liability for the accident, the solicitors will review the case. They will advise the RMT member of whether they feel he or she has sufficient prospects of success to recommend starting Court proceedings. For example, they may chase a witness who has not replied or try to obtain any missing documents. If at the end of this process, the solicitor considers that the member does not have reasonable prospects of success they will advise them not to pursue the matter further
- However, if the solicitors feel that there are reasonable prospects of success then, before starting Court proceedings, the member’s file will be seen by a barrister to prepare a document known as the “Particulars of Claim”
- The Particulars of Claim, medical evidence and Schedule of Loss are lodged at Court
- Once Court proceedings have been started they are “served” on the Defendant. They then have 28 days to provide their Defence to the claim

- From then on, cases can take very different paths as they are managed by the court and it is harder to give any more than the most general guidelines
- The Court will set a timetable for steps to be taken prior to a final hearing. These steps include exchange of documents and witness statements and provision for parties to put questions to the medical experts. In higher value cases, the Defendants are often given permission to obtain their own medical evidence
- In some cases, a Court will hold a preliminary hearing some months before the date set for the final hearing to see whether there is a chance of settling the case
- The Court may also direct that the case be heard by a mediator
- If a case does not settle, then it may go to trial. An RMT member and any witness supporting him or her will give evidence and can be questioned by the Defendant's barrister. Any witness for the other side will give their evidence and be questioned by the member's barrister. In higher value cases, the medical experts may also be present to give evidence if their evidence cannot be agreed
- At the conclusion of hearing all the evidence, the barristers will sum up the case and the Judge will decide who has won and, if successful, how much compensation to award the member.

We hope the above is a useful summary of the process followed in a typical case. Please remember that the exact details will vary from case to case and each individual member will of course be given appropriate advice relating to their own case as it progresses.

Settlement

The vast majority of personal injury cases for accidents at work or health conditions caused by work do not proceed to a final Court hearing. Instead, the two sides will come to an agreement to settle the claim.

Settlement is in everyone's interests. It removes any uncertainty as the member will know they are going to get compensation. If a case proceeds to trial, there is always a risk of losing and getting nothing. It avoids the stress of a prolonged legal process. It reduces legal costs.

In many cases, the employer will want to settle the case and may make an offer or offers to achieve this. They can make an offer, known as a Part 36 offer, which will have significant consequences in relation to who pays for the costs of the claim. If a Part 36 offer is rejected and the member does not better the offer at trial, they or the RMT may have to pay for the employer's legal costs from the date of the offer.

If the RMT decides to support a member's claim they will be given advice by the lawyers on its likely value. They will also be advised if an offer made by the

Advice on Making a Claim When a Member Sustains Personal Injury

employer should be accepted. It is a condition of the RMT's ongoing support for a claim that members accept the legal advice.

Of course, members also have the option of continuing the case on their own.

Advice on making a claim as regards occupational stress and/or bullying and harassment in the workplace

There are no specific regulations aimed at controlling stress and bullying at work, but employers do have legal duties. Particularly, if the bullying or harassment is related to a protected characteristic covered by the Equality Act 2020 (e.g. sex, race, disability, sexual orientation, age, pregnancy/maternity, religion or belief, gender reassignment or marriage and civil partnership) there may be a claim in the employment tribunal depending on the circumstances.

Bullying and harassment because a member has undertaken certain actions at work e.g. whistleblowing, trade union activities, health and safety activities, asserting their statutory rights under certain types of employment protection legislation, may also give rise to a claim for detriment (or unfair dismissal) in the employment tribunal.

Advice should be sought from the RMT Legal Department in cases of bullying and harassment via an L2 form.

25. ADVICE ON 'SERIOUS AND IMMINENT DANGER'

In certain circumstances employees are protected by law if they decide that their work situation represents a threat of "serious or imminent danger" and as a result of this belief they remove themselves to a place of safety. Protection is also given to trade union appointed health and safety representatives.

This chapter is intended to clarify the law in these cases and is for the use of RMT members and health and safety representatives.

Procedures for serious and imminent danger and for danger areas

The Management of Health and Safety at Work Regulations 1999 (the Management Regs), Reg 8, reads as follows:

- (1) *Every employer shall—*
 - (a) *establish and where necessary give effect to appropriate procedures to be followed in the event of serious and imminent danger to persons at work in his undertaking;*
 - (b) *nominate a sufficient number of competent persons to implement those procedures in so far as they relate to the evacuation from premises of persons at work in his undertaking; and*
 - (c) *ensure that none of his employees has access to any area occupied by him to which it is necessary to restrict access on grounds of health and safety unless the employee concerned has received adequate health and safety instruction.*
- (2) *Without prejudice to the generality of paragraph (1)(a), the procedures referred to in that sub-paragraph shall—*
 - (a) *so far as is practicable, require any persons at work who are exposed to serious and imminent danger to be informed of the nature of the hazard and of the steps taken or to be taken to protect them from it;*
 - (b) *enable the persons concerned (if necessary by taking appropriate steps in the absence of guidance or instruction and in the light of their knowledge and the technical means at their disposal) to stop work and immediately proceed to a place of safety in the event of their being exposed to serious, imminent and unavoidable danger; and*
 - (c) *save in exceptional cases for reasons duly substantiated (which cases and reasons shall be specified in those procedures), require the persons concerned to be prevented from resuming work in any situation where there is still a serious and imminent danger.*
- (3) *A person shall be regarded as competent for the purposes of paragraph (1)(b) where he has sufficient training and experience or knowledge and other qualities to enable him properly to implement the evacuation procedures referred to in that sub-paragraph.*

Further protection is offered to employees by the Employment Rights Act 1996 (ERA) as amended which states that Safety Reps have a right not to be subject to any detriment in connection with preventing or reducing risks to health and safety at work. Furthermore, an employee who raises issues that they reasonably believe to be harmful or potentially harmful to health and safety should not suffer detriment. Also, in circumstances of danger which the employee reasonably believed to be serious and imminent and which he or she could not have been expected to avert, the employee who left or proposed to leave while the danger persisted should not suffer detriment.

Protection from suffering detriment in employment

The ERA part V, section 44 reads as follows:

Rights not to suffer detriment

- (1) *An employee has the right not to be subjected to any detriment by any act, or any deliberate failure to act, by his employer done on the ground that-*
 - (a) *having been designated by the employer to carry out activities in connection with preventing or reducing risks to health and safety at work, the employee carried out (or proposed to carry out) any such activities,*
 - (b) *being a representative of workers on matters of health and safety at work or member of a safety committee-*
 - (i) *in accordance with arrangements established under or by virtue of any enactment, or*
 - (ii) *by reason of being acknowledged as such by the employer, the employee performed (or proposed to perform) any functions as such a representative or a member of such a committee,*
 - (ba) *The employee took part (or proposed to take part) in consultation with the employer pursuant to the Health and Safety (Consultation with Employees) Regulations 1996 or in an election of representatives of employee safety within the meaning of those Regulations (whether as a candidate or otherwise),*
 - (c) *being an employee at a place where-*
 - (i) *there was no such representative or safety committee, or*
 - (ii) *there was such a representative or safety committee but it was not reasonably practicable for the employee to raise the matter by those means, he brought to his employer's attention, by reasonable means, circumstances connected with his work which he reasonably believed were harmful or potentially harmful to health or safety,*
- (1A) *A worker has the right not to be subjected to any detriment by any act, or any deliberate failure to act, by his or her employer done on the ground that—*
 - (a) *in circumstances of danger which the worker reasonably believed to be serious and imminent and which he or she could not reasonably have been expected*

to avert, he or she left (or proposed to leave) or (while the danger persisted) refused to return to his or her place of work or any dangerous part of his or her place of work, or

- (b) *in circumstances of danger which the worker reasonably believed to be serious and imminent, he or she took (or proposed to take) appropriate steps to protect himself or herself or other persons from the danger.*
- (2) *For the purposes of subsection (1A)(b) whether steps which a worker took (or proposed to take) were appropriate is to be judged by reference to all the circumstances including, in particular, his knowledge and the facilities and advice available to him at the time.*
- (3) *A worker is not to be regarded as having been subjected to any detriment on the ground specified in subsection (1A)(b) if the employer shows that it was (or would have been) so negligent for the worker to take the steps which he took (or proposed to take) that a reasonable employer might have treated him as the employer did.*
- (4) *This section does not apply where the worker is an employee and the detriment in question amounts to dismissal (within the meaning of Part X).*

So, if an employee leaves, or proposes to leave, or (while the danger persists) refuses to return to his or her place of work (or any dangerous part of it) in circumstances of danger which he or she reasonably believed to be serious and imminent, and which he/she could not reasonably have been expected to avert, or he/she takes, or proposes to take, “appropriate steps” to protect himself, herself or other persons in circumstances of danger which he or she reasonably believes to be serious and imminent, **they should not be subjected to any detriment.**

The Employment Tribunals have taken a reluctant approach to include issues of Covid-19 within the meaning of serious and imminent danger. Recent case law has established that although the law says that it is automatically unfair to dismiss someone who leaves work or refuses to return in circumstances of danger that which they reasonably believe to be ‘serious and imminent’, the Employment Appeal Tribunal has held that it was not automatically unfair to dismiss an employee who refused to return to work during the first lockdown because of concerns about the risks posed by Covid-19.

The Management Regs and the ERA place a duty on employers to have in place procedures for workers to follow for circumstances of serious or imminent danger, sometimes known as worksafe procedures. They must set out what steps employees must take in such circumstances and should as a minimum address the following points:

- the nature of the risk and how to react
- procedures to cover risks going further than those due to fire and bombs

Advice on 'Serious and Imminent Danger'

- additional duties of persons with specific tasks such as shutting down a plant, or who have had training in controlling an emergency event. Such employees should have appropriate preventive measures available to them
- the role, duties and authority of the competent persons nominated to implement the detailed actions
- specific duties of employers under health and safety regulations which address specific emergency situations
- information on when and how procedures are to be implemented, so that employees have adequate time to evacuate to a place of safety.

Work should only be resumed after an emergency if no serious danger remains. Entry to areas where serious danger remains may be necessary in exceptional cases, and in such situations special protective measures should be taken.

Appropriate external contacts should be in place to ensure that there is adequate first aid, emergency medical care and rescue work provision. In places where there are several employers, one employer may arrange contacts on behalf of all the employers. Contacts with external services should be recorded and reviewed and revised as required. Employees should be provided with information on the emergency arrangements, including the identity of the staff nominated to help during an evacuation.

In the case of an employee who believes himself/herself to be in serious and imminent danger and who on that account quits work, they must genuinely believe the danger to be serious and imminent. If he/she cannot reasonably avert the danger then they are entitled to take themselves out of harm's way.

In circumstances of danger which the employee reasonably believes to be serious and imminent, the employee may also take appropriate steps to protect themselves and others from the danger. This includes situations in which the employee genuinely and reasonably believes that there is a serious and imminent danger to others, including members of the public.

Whether or not the steps which an employee takes to protect him or herself or others from danger are 'appropriate' will be judged by reference to all the circumstances including, in particular, the employee's knowledge and the facilities and advice available at the time.

26. FURTHER INFORMATION

Different sources of information:

All regulations made since 1988 can be found here: www.legislation.gov.uk

Employers, particularly larger organisations, will have their own intranet detailing company standards and other aspects of the company's safety management system. Safety Reps are entitled to be provided with reasonable access to all such information that enables them to fulfil their functions.

Useful Websites

There are a number of general websites that could prove useful for a RMT Safety Rep:

HSE (Health & Safety Executive)

www.hse.gov.uk

The HSE web site contains lots of useful information.

Department for Transport

www.dft.gov.uk

Contains information and statistics on UK road safety matters, including drivers hours' and tachograph rules. Also reports and guidance relating to crime on public transport.

Driver & Vehicle Licensing Agency

<https://www.gov.uk/government/organisations/driver-and-vehicle-licensing-agency>

Contains information about UK road transport driving licences and medical conditions.

Office of Rail and Road

www.rail-reg.gov.uk

Home of HM Railway Inspectorate. Site provides information on railway specific health and safety legislation, consultation documents and enforcement issues.

Rail Accident Investigation Branch

www.raib.gov.uk

Independent railway accident investigation organisation. Contains reports on all investigations into serious railway accidents carried out by the Branch.

Rail Safety & Standards Board

<https://www.rssb.co.uk/>

Safety performance and standards facilitator for mainline rail industry. Contains detailed statistics on railway health and safety performance. Also, European and Group Standards, Strategic Plan and research reports.

RMT website

www.rmt.org.uk

Contains access to RMT News, reports, circulars and information on current health and safety issues.

Trades Union Congress

www.tuc.org.uk

Has various features and information of interest to Safety Reps. Also provides the opportunity to sign-up to receive weekly e-mail bulletins on health and safety, including safety news from TUC and the unions direct: to receive 'Risks' sign up here: www.tuc.org.uk/mediacentre/register

Hazards Magazine

www.hazards.org

Contains news and features on various occupational health and safety matters.

Hazards Campaign

<https://www.hazardscampaign.org.uk/>

The Hazards Campaign is a UK-wide network of safety campaigners which supports those organising and campaigning for justice and safety at work.

International:

European Agency for Safety and Health at Work

<http://osha.europa.eu>

Single reference point for occupational health and safety information in the European Union.

US Occupational Safety and Health Administration

www.osha.gov

Sets and enforces health and safety standards for most workers in the United States. Contains information on various hazardous issues and matters of concern.

INDEX

Health and Safety at Work Act 1974	6
Introduction	6
Application	6
So far as is Reasonably Practicable	7
General Duties	7
Employers Duties to Employees	7
Employers Duty to Consult	8
Employers Duties to Others	8
Employees Duties to Self and Others	9
Health and Safety Policy	7
Cost of Safety Equipment	9
Subordinate Legislation	9
Prosecutions	10
Enforcing Authorities	11
Introduction	11
Health and Safety Executive	11
Local Authorities	11
Office of Rail and Road Regulation	11
Fire and Rescue Authority	12
Relationship with Health and Safety Representatives	12
Inspectors' Powers	13
Enforcement Notices	13
Improvement Notices	13
Prohibition Notices	13
Appeals	13
Accident Investigation	14
Introduction	14

Enforcing Authorities	11
Work-Related Deaths	14
Rail Accident Investigation Branch	14
Organisation	14
Duty to Notify	15
Conduct of Investigations	16
Accident and Incident Reports	16
RMT Members Attending Interviews	17
Management of Health and Safety at Work Regulations 1999	18
Introduction	18
Risk Assessment	18
Arrangements for Health and Safety	19
Health Surveillance	20
Health and Safety Assistance	20
Procedures for Serious and Imminent Danger	20
Contact with External Services	21
Employees Duties	22
Information to Workers	21
Co-operation and Co-ordination Between Employers	21
Workplace Occupancy	21
Working in Other Employers Premises	21
Capability and Training	22
New or Expectant Mothers	22
Avoidance of Risk	23
Protection of Young Persons	23
Risk Assessment	24
Introduction	24
Other Legislation	24

Health and Safety at Work Handbook

What the Law Requires	24
Consultation	25
The Process	25
Evaluation	26
Safety Representatives and Safety Committees Regulations 1977	29
Introduction	29
Functions	30
Consultation	31
Workplace Inspections	32
Checklist Approach	32
Safe Systems of Work	33
Inspection Report	33
Inspections Following Accidents etc	33
Provision of Information	33
Safety Committees	34
Paid Time Away from Normal Work	30
Refused Applications	31
Facilities	32
Workplace (Health Safety & Welfare) Regulations 1992	35
Introduction	35
Application	35
Temporary Work Sites	35
Environmental Standards	35
Maintenance	35
Ventilation	36
Temperature	36
Lighting	37
Cleanliness	37

Space	38
Physical Standards	38
Workstations and Seating	38
Floors and Traffic Routes	38
Falls into Dangerous Substances	39
Windows and Doors	39
Windows, Skylights and Ventilators	39
Arrangement of Traffic Routes	40
Doors and Gates	41
Toilets	41
Washing Facilities	42
Drinking Water	42
Clothing Accommodation	42
Changing Facilities	42
Facilities for Rest and Meals	43
Disabled Persons	43
Personal Protective Equipment at Work Regulations 1992	44
Introduction	44
Application	44
Interpretations	44
Personal Protective Equipment	44
Provision of PPE	45
Suitability and Compatibility of PPE	45
Assessment of Suitability	46
Maintenance of PPE	46
Accommodation	46
Information, Instruction & Training	47
Proper Use of PPE	47

Cost of PPE	47
Manual Handling Operations Regulations 1992	48
Introduction	48
Application	48
Interpretations	48
Load	48
Manual Handling Operation	48
Injury	48
Avoidance of Manual Handling	48
Risk Assessment	49
Task	49
Load	49
Working Environment	49
Individual Characteristics	49
Reducing the Risk	49
Information About the Load	50
Review	50
Employees Duties	51
Work at Height Regulations 2005	52
Introduction	52
Application	52
Interpretations	52
Work at Height	52
Organisation and Planning	52
Competence	52
Avoidance of Risks	53
Prevention of Falls	53
Mitigation of Consequences	53

Selection of Work Equipment	54
Requirements for Particular Work Equipment	54
Ladders	54
Inspection of Particular Work Equipment	55
Fragile Surfaces	55
Falling Objects	56
Danger Areas	56
General Inspections	56
Duties of Persons at Work	56
Provision and Use of Work Equipment Regulations 1998	57
Introduction	57
Application	58
Interpretations	57
Work Equipment	57
Use of Work Equipment	58
Management Duties	58
Suitability	58
Maintenance	58
Inspection	58
Specific Risks	59
Information and Instructions	59
Training	60
Design Requirements	60
Physical Controls	60
Dangerous Parts of Machinery	60
Specified Hazards	60
High or Very Low Temperature	60
Starting and Stop Controls	60

Health and Safety at Work Handbook

Visibility and Position of Controls	61
Control Systems	61
Isolation from Power Supply	61
Stability and Lighting	61
Maintenance Operations	61
Markings and Warning Devices	62
Mobile Work Equipment	62
Carrying People	62
Roll-Over Protection	62
Self-Propelled Work Equipment	62
Remote-Controlled Self-Propelled Work Equipment	63
Drive Shaft	63
Power Presses	63
Application	63
Initial Examinations	63
Periodical Examinations	64
Inspections	64
Report	64
Records	65
Lifting Operations & Lifting Equipment Regulations 1998	66
Introduction	66
Application	66
Interpretations	67
Lifting Equipment	67
Lifting Operation	67
Strength and Stability of Lifting Equipment	67
Equipment for Lifting People	67
Positioning and Installation of Equipment	68

Marking of Equipment	68
Organising Lifting Operations	69
Examinations and Inspections	69
Reports and Defects	70
Records	70
Health & Safety (Display Screen Equipment) Regulations 1992	71
Introduction	71
Application	71
Interpretations	71
Display Screen Equipment	71
Workstation	72
User	72
Analysis of Workstations	72
Requirements for Workstations	73
Daily Work Routine of Users	73
Eyes and Eyesight	74
Provision of Training	74
Provision of Information	75
Health and Safety (First-Aid) Regulations 1981	76
Introduction	76
Application	76
Interpretations	76
First-Aid	76
First-Aid Provision	76
Duties of Employer	76
Assessment	77
Facilities and Equipment	78
Provision of Personnel	78

Information	79
Regulatory Reform (Fire Safety) Order 2005	80
Introduction	80
Application	80
Responsible Person	80
General Fire Precautions	81
Risk Assessment	81
Principles of Prevention	83
Fire safety Arrangements	83
Fire Fighting and Fire Detection	84
Emergency Routes and Exits	84
Procedures for Serious and Imminent Danger	85
Danger Areas	81
Dangerous Substances (Flammable or Explosive)	81
Risk Assessment	82
Elimination or Reduction of Risks	81
Additional Emergency Measures	85
Maintenance System	86
Safety Assistance	86
Information to Workers	86
Training	87
Employees Duties	87
Alterations Notices	87
Sub-Surface Railway Stations	88
Control of Substances Hazardous to Health Regulations 2002	89
Introduction	89
Application	89
Employers Duties	90

Interpretations	90
Substance	90
Workplace Exposure Limits	90
Principles of Good Practice	91
Prohibitions Relating to Certain Substances	90
Risk Assessment	90
Prevention or Control of Exposure	91
Control Measures	91
Use of Control Measures	93
Maintenance, Examination and Testing	93
Exposure Monitoring	93
Health Surveillance	94
Information, Instruction and Training	95
Emergency Arrangements	95
Control of Asbestos at Work Regulations 2006	96
Introduction	96
Application	96
Employers Duties	97
Non-Domestic Premises	97
Duty to Manage Asbestos in Premises	97
Assessing the Location and Condition of Asbestos.	97
Analysing Samples	106
Carrying Out Work with Asbestos	101
Licensing of Work	101
Risk Assessment	100
Plan of Work	100
Notification of Work	101
Information, Instruction and Training	102

Control Measures	102
Prevention or Reduction of Exposure	102
Use of Control Measures	103
Designated Areas	105
Monitoring Arrangements	106
Maintenance, Examination and Testing	103
Exposure Monitoring	106
Standards of Competence	107
Health Surveillance	107
Emergency Arrangements	107
Cleaning and Welfare	105
Provision and Cleaning of Protective Clothing	104
Duty to Prevent or Reduce the Spread of Asbestos	105
Cleanliness of Premises and Plant	107
Washing and Changing Facilities	107
Storage, Distribution and Labelling	108
Prohibitions	108
Exposure to Asbestos	108
Importation of Asbestos	96
Supply of Asbestos	108
Use of Asbestos	108
Labelling of Products	108
Exceptions and Exemptions – Control Measures	108
Control of Noise at Work Regulations 2005	110
Introduction	110
Application	110
Employers Duties	110
Noise Exposure Levels	111

Exposure Limit Values and Action Values	111
Assessment of Risk	112
Factors to Consider	112
Review and Record	112
Elimination or Control of Exposure	113
Methods of Control	113
Exposure Limit Value	113
Hearing Protection	114
Hearing Protection Zone	114
Maintenance and Use of Equipment	114
Duty of Employees	115
Health Surveillance	115
Information, Instruction and Training	115
Control of Vibration at Work Regulations 2005	117
Introduction	117
Application	117
Exposure limit Values and Action Values	117
Assessment of Risk	118
Assessing the Level of Exposure	118
Factors for Consideration	118
Review and Record	119
Elimination or Control of Exposure	119
Control Measures	120
Exposure Limit Values	120
Health Surveillance	121
Information, Instruction and Training	122
Fatigue	123
Health impact of shift work	123

Health and Safety at Work Handbook

Causes of fatigue	125
Legislation	125
ORR guidance 'Managing Rail Staff Fatigue' (MRSF)	127
Fatigue Risk Management System (FRMS)	127
Safety Critical Work	130
Road Vehicle transport/bus and taxis	132
Stress	134
Legislation	134
HSE Management Standards	134
Planning	135
Stress related sickness	136
Working in extreme weather	137
Legislation	137
Heat stress	137
Heat exhaustion	138
Heat stroke	138
Skin cancer	138
Indoor work and heat	138
Outdoor work and heat	139
Driving	140
Working in cold weather legislation	140
Thermal risk assessment	141
Health risks	141
Indoor and outdoor work in cold weather	142
PPE	143
Regular breaks	144
Criminal Injuries Compensation Claims/Civil Assault Claims	146
Personal Injuries Claims	147

Common Law	148
Statutory Law	148
Foreseeability	149
What to do in the event of an accident	149
How to make a claim	150
Settlement	152
Serious and Imminent Danger	154
Legislation	154
Further Information	158
Introduction	158
Useful Websites	158
Health and Safety Executive	158
European Agency for Safety and Health at Work	159
US Occupational Safety and Health Administration	159
Department for Transport	158
Driver and Vehicle Licensing Agency	158
Office of Rail Regulation	107
Rail Accident Investigation Branch	158
Rail Safety and Standards Board	158
RMT	159
Trades Union Congress	159
Hazards Magazine	159