

JEREMY STRANKS

Health and Safety Pocket Book



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Jeremy Stranks



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Preface

Health and safety is a diverse subject covering many disciplines – law, engineering, human behaviour, safety management and occupational health – each of which is an area of study in its own right.

The *Health and Safety Pocket Book* has been written as a unique aid to health and safety practitioners and consultants, engineers, HR managers, lawyers and employee representatives. It should also be of use to those managers, across the full scope of industry and commerce, who may have specific responsibility for health and safety, together with those studying for specific qualifications in the discipline. The main objective is to provide a ready reference text on a wide range of issues, including the principal features of health and safety law, established management systems and sources of information.

A number of checklists, which are useful in the risk assessment process, have been incorporated, together with tables, figures and forms used on a regular basis. Specific parts include a glossary of commonly used terms, a summary of the legal requirements for documentation and record keeping, along with information on accredited health and safety training courses, professional organisations in health and safety and a breakdown of the legal requirements for the various industrial groups.

The A–Z arrangement within chapters and extensive cross-referencing makes the book easy to navigate. Individual references point the reader to the original legislation and more specialised reading.

I hope all who use this book will find it helpful.

Jeremy Stranks
November 2005

Abbreviations

ACOP	Approved Code of Practice
BS	British Standard
BSC	British Safety Council
CBI	Confederation of British Industry
CDM	Construction (Design and Management) Regulations
CE	Communauté Européen
CHIP	Chemicals (Hazard Information and Packaging for Supply) Regulations
CORGI	Council for the Registration of Gas Installers
COSHH	Control of Substances Hazardous to Health
dB	Decibel
DSE	Display screen equipment
EA	Enforcing authority
EC	European Community
EHSRs	Essential health and safety requirements
ETBA	Energy Trace and Barrier Analysis
FPA	Fire Protection Association
HAZOPS	Hazard and Operability Studies
HFL	Highly flammable liquid
HMSO	Her Majesty's Stationery Office
HSC	Health and Safety Commission
HSE	Health and Safety Executive
HSWA	Health and Safety at Work etc. Act
HPZ	Hearing protection zone
IOELVs	Indicative Occupational Exposure Limit Values
ISO	International Standards Organisation
LEAV	Lower exposure action value
LEV	Local exhaust ventilation
LOLER	Lifting Operations and Lifting Equipment Regulations
LPG	Liquefied petroleum gas
Lx	Lux

MHSWR	Management of Health and Safety at Work Regulations
MORT	Management of Risk Tree
P	So far as is practicable
PHP	Personal hearing protection
PPE	Personal protective equipment
QSA	Quality Systems Auditing
RP	So far as is reasonably practicable
RoSPA	Royal Society for the Prevention of Accidents
RPE	Respiratory protective equipment
SCOEL	Scientific Committee on Occupational Exposure Limits
SHH	Substance(s) hazardous to health
THERP	Technique for Human Error Rate Probability
UEAV	Upper Exposure Action Value
WEL	Workplace Exposure Limit

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PART 1

Health and Safety Law

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1(a)

Legal background

Health and safety law covers many aspects involving people at work, including the civil and criminal liabilities of employers towards their employees and other persons.

The following topics are of particular significance in any consideration of the principal features of health and safety law.

Absolute (strict) liability

Certain duties under health and safety laws are of an absolute or strict nature. These duties are qualified by the terms 'shall' or 'must', such as the absolute duty on employers under the Management of Health and Safety at Work Regulations to undertake a suitable and sufficient risk assessment. Generally no defence is available although, when charged with an absolute offence, it may be possible to submit a plea in mitigation.

All reasonable precautions and all due diligence ('due diligence' defence)

Under certain Regulations, such as the Electricity at Work Regulations and the Control of Substances Hazardous to Health (COSHH) Regulations, an employer charged with an offence may be able to submit the defence that 'he took all reasonable precautions and exercised all due diligence to avoid the commission of the offence'.

To rely on this defence, the employer must establish that, on the balance of probabilities, he has taken *all* precautions that were reasonable and exercised *all* due diligence to ensure that

these precautions were implemented in order to avoid such a contravention. It is unlikely that an employer could rely on this defence if:

- (a) precautions were available which had not been taken; or
- (b) that he had not provided sufficient information, instruction and training, together with adequate supervision, to ensure that the precautions were effective.



1(a) Legal background

Defences



1(c) Principal regulations

Control of Substances Hazardous to Health Regulations 2002

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Pressure Systems Safety Regulations 2000

Approved Codes of Practice

The HSC is empowered to issue and approve Codes of Practice which accompany Regulations, e.g. *Workplace health, safety and welfare*, the Approved Code of Practice (ACOP) accompanying the Workplace (Health, Safety and Welfare) Regulations 1992.

An ACOP has limited legal status. Failure to comply with the recommendations in an ACOP may be used as evidence of failure to comply with a duty under Regulations, unless it can be shown that 'works of an equivalent nature' (which met the requirements but in a different way) had been undertaken.



1(d) Approved Codes of Practice

Breach of statutory duty

In certain circumstances a breach of a statutory duty, which results in injury to a person of a class which the statute was

designed to protect, will give the injured person a civil cause of action. The requirements which have to be satisfied before such a cause of action arises are:

- (a) that the statutory provision, properly construed, was intended to protect an ascertainable class of persons of whom the claimant was one;
- (b) that the provision has been broken;
- (c) that the claimant had suffered damage of a kind against which the provision was designed to give protection; and
- (d) that the damage was caused by the breach.

The claimant must prove his case by the ordinary standard of proof in civil actions. He must show at least that, on a balance of probabilities, the breach of duty caused, or materially contributed to, his injury.

Breaches of many Regulations, in addition to giving rise to criminal liability, also give rise to civil liability within the tort of breach of statutory duty.



1(a) Legal background

Duty of care

Negligence

Burden of proof

This term applies to both criminal cases and civil claims.

Throughout criminal law the burden of proof of guilt that the accused person committed an offence rests with the prosecution, who must prove guilt 'beyond a reasonable doubt'. Section 40 of the HSWA makes the task of the prosecution easier by transferring the burden of proof to the accused. It is incumbent on the accused to show either that it was not 'practicable' or 'reasonably practicable' in the particular case to satisfy the particular duty or requirement. If the accused cannot discharge this duty, the case will be considered proved against him.

In civil claims, however, the claimant must show this proof of guilt on the part of the defendant 'on the balance of probabilities'.

Case law

Case law, fundamentally, is featured in the decisions of the criminal and civil courts, and based on the doctrine of judicial precedent. These doctrines are to be found in the various Law Reports, such as the All England Reports (AER) and the Industrial Relations Law Reports (IRLR). Case law is a self-endorsing process, perpetuated either by previous binding cases or by the interpretation of legislation.

The following features of a judgment are important:

- (a) the *ratio decidendi* (reason for deciding) – a statement of law based on an examination of the facts and the legal issues surrounding them; this is the most important part of a judgment and contains the actual binding precedent; and
- (b) the *obiter dicta* (words said by the way) – may contain a statement about the law which is not based on the facts of the case under review and which will not, therefore, be part of the decision; this is often held to be of persuasive authority.



1(a) Legal background

Civil and criminal liability
Judicial precedent

Child

A person under compulsory school leaving age and under 16 years.



1(c) Principal regulations

Management of Health and Safety at Work Regulations
1999

Civil and criminal liability

Breaches of health and safety law by employers and others can incur both criminal and civil liability.

Civil liability

Civil liability refers to the 'penalty' that can be imposed by a civil court, e.g. County Court, High Court, Court of Appeal (Civil Division) and the House of Lords.

A civil action generally involves a claim of negligence or breach of statutory duty by a claimant against a defendant. In such actions the claimant sues the defendant for a remedy that is beneficial to the claimant. In most cases, this remedy takes the form of damages, a form of financial compensation. In many cases, the claimant will agree to settle out of court.

Civil cases are decided on 'the balance of probabilities'.

Criminal liability

A crime is an offence against the State. Criminal liability refers to the duties and responsibilities of:

- (a) employers;
- (b) occupiers and controllers of premises;
- (c) manufacturers, designers and suppliers of articles and substances for use at work; and
- (d) employees,

under, principally, the HSWA, and regulations made under the HSWA, and to the penalties that can be imposed by the criminal courts, namely fines and imprisonment. The criminal courts involved are the Magistrates Courts, which handle the bulk of cases, the Crown Court, the Court of Appeal (Criminal Division) and the House of Lords.

Criminal law is based on a system of enforcement by the HSE, local authorities and fire authorities. A person charged with

an offence is innocent until proved guilty 'beyond reasonable doubt'.



1(a) Legal background

Courts and tribunals

Duty of care

Negligence



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



3(a) Tables and figures

Legal routes following an accident at work

Common law and statute law

Common law is the unwritten law in that it is not written down in Statutes and Regulations. It is, fundamentally, the body of accumulated case law (see separate entry) which is based on the decisions of the courts over many years, whereby precedents (see 'Judicial precedent') are established. It is of universal application and record in the various Law Reports. It is applicable to the decisions made by courts at their own level and in directions from superior courts.

Statute law, on the other hand, is the written law produced as a result of the parliamentary process. Statutes supersede all other forms of law and only Parliament can make, modify, revoke or amend statutes.

A statute may give the Minister or Secretary of State power to produce subordinate or delegated legislation, which generally takes the form of Regulations, e.g. the Control of Substances Hazardous to Health Regulations made under the HSWA.



1(a) Legal background

Civil and criminal liability



3(a) Tables and figures

Legal routes following an accident at work

Contractor

A person engaged to perform a certain task without direction from the person employing him, and implies a certain degree of independence from that person. The basic test of whether a person is an independent contractor is one of control over the undertaking of the work specified in the contract.



1(c) Principal regulations

Construction (Design and Management) Regulations 1994
Construction (Health, Safety and Welfare) Regulations 1996



1(d) Approved Codes of Practice

Managing construction for health and safety



1(e) HSE guidance notes

Fire safety in construction: guidance for clients, designers and those managing and carrying out construction work involving significant risks

Health and safety in construction

Health and safety in excavations

Health and safety in roof work

Managing contractors

The safe use of vehicles on construction sites



Appendix B: Documentation and record keeping requirements

Contributory negligence

Where a person suffers damage, as the result partly through his own fault and partly through the fault of another person or persons, a claim in respect of that damage shall not be defeated by reason of the fault of the person suffering the damage, but the damages recoverable will be reduced to such extent as a court considers just and equitable having regard to the claimant's share in the responsibility for the damage.



1(a) Legal background

Duty of care

Negligence

Controlling mind (*mens rea*)



1(a) Legal background

Corporate liability

Corporate liability

Corporate liability refers to the liability of all those directing an undertaking, that is, the corporate body.

A corporate body, for example, the Board of Directors, chief executive, managing director, etc. of an organisation, may be liable for most criminal offences, providing a fine is specified for the offence, the offence is committed by a 'controlling mind', such as a managing director or chief executive, and is committed in the course or his corporate duties.

Under the HSWA, directors, managers, company secretaries and similar officers of the body corporate have both general and specific duties. Breaches of these duties can result in individuals being prosecuted.

Offences by bodies corporate (Sec 37(1))

Where an offence under any of the relevant statutory provisions committed by a body corporate is proved to have been committed with the consent or connivance of, or to have been attributable to any neglect on the part of, any director, manager, secretary or other similar officer of the body corporate or a person who was purporting to act in any such capacity, he as well as the body corporate shall be guilty of that offence and shall be liable to be proceeded against and punished accordingly.



1(a) Legal background

Controlling mind (mens rea)



1(b) The principal statutes

Health and Safety at Work etc. Act 1974

Courts and tribunals

There are two distinct systems whereby the courts deal with criminal offences and civil actions respectively. Some courts have both criminal and civil jurisdiction, however.

Criminal Courts

The Magistrates Courts (or Courts of Summary Jurisdiction) in England and Wales, and the Sheriff Court in Scotland, are the courts of first instance for all criminal offences. Lay Justices of the Peace (JPs) determine and sentence for the majority of the less serious offences. They also hold preliminary examinations into other offences to ascertain whether the prosecution can show a prima facie case on which the accused may be committed for trial at a higher court. The Sheriff Court performs a parallel function in Scotland, although procedures differ from those of the Magistrates Courts.

Serious indictable criminal charges and cases where the accused has the right to trial before a jury are heard on indictment in the Crown Court before a judge and jury. This court is empowered to impose unlimited fines and/or a maximum of two years imprisonment for health and safety-related offences. The Crown Court also hears appeals from the Magistrates Courts.

Civil Courts

County Courts operate on an area basis and deal in the first instance with a wide range of civil matters, such as claims for negligence. They are limited, however, in the remedies that can be applied. Cases are generally heard before a circuit judge or registrar, the latter having limited jurisdiction. A County Court judge can award compensation up to £50 000.

More important civil matters, because of the sums involved or legal complexity, will start in the High Court of Justice

before a High Court judge. The High Court has three divisions:

- (a) Queen's Bench – deals with contracts and torts; claims in excess of that within the County Court's power.

The Queen's Bench Division hears appeals on matters of law:

- (i) from Magistrates Courts and from the Crown Court on a procedure called 'case stated'; and
- (ii) from some tribunals, for example the finding of an employment tribunal on an enforcement notice under the HSWA;

It also has some supervisory functions over the lower courts and tribunals if they exceed their powers or fail to undertake their functions properly.

- (b) Chancery – deals with matters relating to, for example, land, wills, bankruptcy, partnerships and companies;
- (c) Family – deals with matters involving, for example, adoption of children, marital property and disputes.

The High Court, the Crown Court and the Court of Appeal are known as the Supreme Court of Judicature.

The Court of Appeal

The Court of Appeal has two divisions:

- (a) the Civil Division, which hears appeals from the County courts and the High Court; and
- (b) the Criminal Division, which hears appeals from the Crown Court.

The House of Lords

The Law Lords deal with matters of law only, following appeal from the Court of Appeal and, in restricted circumstances, from the High Court.

The European Court of Justice

This is the supreme law court whose decisions on the interpretation of European Community law are sacrosanct. These decisions

are enforceable through the network of courts and tribunals in all Member States. The ECJ has jurisdiction in the following areas:

- (a) Preliminary Ruling Jurisdiction – this enables the court to hear cases referred by the national courts of Member States in matters relating to the interpretation and application of Community law.
- (b) Plenary Jurisdiction – this gives the court the right to award damages for unlawful acts committed by Community institutions.
- (c) Contentious Jurisdiction – this gives the court the right to hear actions between Member States and Community institutions.

Cases can only be brought before the ECJ by organisations or individuals representing organisations.

The ECJ may also give advisory opinion to the Council of Ministers and the European Commission on legal matters.

Employment tribunals

Employment tribunals deal with many employment matters, including industrial relations issues and cases involving unfair dismissal, equal pay and sex discrimination.

Each tribunal consists of a legally qualified chairman appointed by the Lord Chancellor and two lay members, one representing employers and one from a trade union, selected from panels maintained by the Department of Employment following nominations from employers' organisations and trade unions.

When all three members of a tribunal are sitting, the majority view prevails.

Employment tribunals deal with the following health and safety-related issues:

- (a) appeals against Improvement and Prohibition Notices served by the enforcement agencies;
- (b) time off for the training of safety representatives;

- (c) failure of an employer to pay safety representatives for time off for undertaking their functions and for training;
- (d) failure of an employer to make a medical suspension payment; and
- (e) dismissal, actual or constructive, following a breach of health and safety law, regulation and/or term of employment contract.

Employment appeals tribunals, presided over by a judge, hear appeals on points of law from employment tribunals.



1(c) Principal regulations

Safety Representatives and Safety Committees Regulations 1977



3(a) Tables and figures

Legal routes following an accident at work

Damages

Civil liability may result in an award of damages for injury, disease or death at work in circumstances disclosing a breach of common law and/or statutory duty on the part of an employer/occupier of premises and arising out of and in the course of employment.

General damages relate to losses incurred after the hearing of an action, namely actual and probable loss of future earnings following an accident.

Special damages relate to quantifiable losses incurred before the hearing of the case, and consist mainly of medical expenses and loss of earnings.

In the case of fatal injury, compensation for death negligently caused is payable under the Fatal Accidents Act 1976, and a fixed lump sum is payable under the Administration of Justice Act 1982 in respect of bereavement.

**1(a) Legal background***Contributory negligence**Duty of care**Negligence***Defences****Civil actions**

Where presented with a civil claim based on negligence or breach of statutory duty, a defendant may deny liability on the following grounds:

- (a) that the duty alleged to have been breached was never owed to the claimant in the first place;
- (b) that the nature of the duty was different from that pleaded by the defendant – that the duty was complied with;
- (c) that the breach of duty did not lead to the injury, damage or loss in question;
- (d) that the claimant was partly to blame i.e. was guilty of contributory negligence, which resulted in injury damage or loss.

**1(a) Legal background***Duty of care**Contributory negligence**Negligence**Res ipsa loquitur**Volente non fit injuria***Criminal charges**

Where charged with an offence under the HSWA or any of the relevant statutory provisions, a defendant may submit a defence on the basis that he had taken all 'practicable' or 'reasonably practicable' measures to comply with the requirement.

In other cases, Regulations such as the Pressure Systems Safety Regulations 2000, provide the defence of having taken all

reasonable precautions and exercised all due diligence to prevent the commission of an offence.



1(a) Legal background

All reasonable precautions and all due diligence

Burden of proof

Duties (hierarchy of)



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Control of Substances Hazardous to Health Regulations 2002

Chemicals (Hazard Information and Packaging for Supply)

Regulations 2002

Pressure Systems Safety Regulations 2000

Delegated legislation

A statute may delegate to the Minister or Secretary of State power to make specific and detailed legislation on requirements covered in the statute. Delegated or subordinate legislation is exercised through Statutory Instruments (Sis) and generally takes the form of Regulations, such as the Provision and Use of Work Equipment Regulations and the Control of Substances Hazardous to Health (COSHH) Regulations. Many Regulations are now introduced to meet the requirements of various European Directives.



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Regulations made under the Health and Safety at Work etc.

Act 1974

Disclosure of information

Section 28 of the HSWA requires that no person shall disclose any information obtained by him or her as a result of the exercise of

any power conferred by Sections 14 or 20 (including, in particular, any information with respect to any trade secret obtained by him or her in any premises entered by him or her by virtue of any such power) except:

- (a) for the purpose of his functions;
- (b) for the purpose of any legal proceedings, investigation or inquiry, for the purpose of a report of any such proceedings or inquiry or of a special report made by virtue of Section 14; or
- (c) with the relevant consent.

Information must not normally be disclosed except with the consent of the person providing it. Disclosure may be made in certain cases:

- (a) for the purpose of any legal proceedings, investigation or inquiry held at the request of the HSC;
- (b) with the relevant consent;
- (c) for providing employees or their representatives with health and safety-related information.



1(b) The principal statutes

Health and Safety at Work etc. Act 1974

Due diligence



1(a) Legal background

*All reasonable precautions and all due diligence
Defences*

Duties (hierarchy of)

Duties on employers and others under health and safety law may be absolute or strict, or qualified by the terms 'so far as is practicable' or 'so far as is reasonably practicable'.

Absolute requirements

Where risk of death, injury or disease is inevitable if health and safety requirements are not complied with, a statutory duty may well be strict or absolute. An example of an absolute duty is to be found in Regulation 5(1) of the Provision and Use of Work Equipment Regulations which states:

Every employer shall ensure that work equipment is so constructed or adapted as to be suitable for the purpose for which it is to be used or provided.

Absolute duties are qualified by the term 'shall' or 'must' and there is little or no defence available when charged with such an offence.

'Practicable' requirements

A duty qualified by the term 'so far as is practicable' implies that if in the light of current knowledge or invention, or in the light of the current state of the art, it is feasible to comply with the requirement then, irrespective of cost or sacrifice involved, such a requirement must be complied with. [*Schwalb v Fass H & son (1946) 175 LT 345*]

'Practicable' means more than physically possible and implies a higher duty of care than a duty qualified by 'so far as is reasonably practicable'.

'Reasonably practicable' requirements

'Reasonably practicable' is a narrower term than 'physically possible' (i.e. 'practicable') and implies that a computation must be made in which the quantum of risk is placed in one scale and the sacrifice involved in the measures necessary for averting the risk is placed in the other. If it can be shown that there is a gross disproportion between these two factors, i.e. the risk being insignificant in relation to the sacrifice, then a defendant discharges the onus upon himself. [*Edwards v National Coal Board (1949) 1 AER 743*]

Most duties under the HSWA are qualified by the term 'so far as is reasonably practicable'.



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Construction (Design and Management) Regulations 1994
Control of Substances Hazardous to Health Regulations 2002
Management of Health and Safety at Work Regulations 1999
Manual Handling Operations Regulations 1992
Provision and Use of Work Equipment Regulations 1998

Duty holders

A term used in certain Regulations, such as the Electricity at Work Regulations and the Construction (Design and Management) Regulations, specifying classes of person on whom duties are imposed, such as employers, self-employed persons, clients and contractors.



1(c) Principal regulations

Construction (Design and Management) Regulations 1994
Electricity at Work Regulations 1989

Duty of care

The common duty of care between one person and another, such as an employer and employee, occupier of premises and visitor, or the manufacturer of a product and the user of that product, is a key principle of common law. Fundamentally, everyone owes a duty to everyone else to take reasonable care so as not to cause them foreseeable injury.

The effect of this requirement is that if an employer knows of a risk to the health and safety of his employees, or ought, in the light of knowledge current at that time, to have known of the existence of such a risk, he will be liable if an employee is injured

or suffers death as a result of that risk, or if the employer failed to take reasonable care to avoid the risk arising.



1(a) Legal background

Common law and statute law
Contributory negligence
Negligence

Employers' duties (common law)

The duties of an employer under the common law were established in general terms in *Wilson's & Clyde Coal Co. Ltd. v English (1938) AC 57 2 AER 68*. Under the common law all employers must provide and maintain:

- (a) a safe place of work with safe means of access to and egress from same;
- (b) safe appliances and equipment and plant for doing the work;
- (c) a safe system for doing the work; and
- (d) competent and safety-conscious personnel.



1(a) Legal background

Case law
Common law and statute law
Contributory negligence
Duty of care
Negligence

Employers' liability

Employers are vicariously liable for the actions of their employees. This liability must be insured against under the Employers' Liability (Compulsory Insurance) Act 1969. Employers cannot contract out of this liability as such practices are prohibited by

the Law Reform (Personal Injuries) Act 1948 and the Unfair Contract Terms Act 1977.



1(a) Legal background

Vicarious liability



1(b) The principal statutes

Health and Safety at Work etc. Act 1974

Unfair Contract Terms Act 1977

Enforcement arrangements – powers of inspectors

Enforcement authorities, such as the HSE, appoint inspectors who have specific powers under the HSWA. These powers are specified in section 20 of the HSWA thus:

- (a) to enter premises at any reasonable time and, where obstruction is anticipated, to enlist the support of a police officer;
- (b) on entering premises:
 - (i) to take with him any person duly authorised by his enforcing authority; and
 - (ii) any equipment or materials required for any purpose for which the power of entry is being exercised;
- (c) to make such examination and investigation as may be necessary;
- (d) to direct that premises or any part of such premises, or anything therein, shall remain undisturbed for so long as is reasonably necessary for the purposes of examination or investigation;
- (e) to take such measurements and photographs and make such recordings as he considers necessary for the purposes of any examination or investigation;
- (f) to take samples of any articles or substances found in any premises, and of the atmosphere in or in the vicinity of such premises;
- (g) where it appears to him that any article or substance has caused or is likely to cause danger to health or safety, to

- cause it to be dismantled or subjected to any process or test;
- (h) to take possession of any article or substance and to detain same for so long as is necessary:
 - (i) to examine same;
 - (ii) to ensure it is not tampered with before his examination is completed; and
 - (iii) to ensure it is available for use as evidence in any proceedings for an offence under the relevant statutory provisions;
 - (i) to require any person whom he has reasonable cause to believe to be able to give any information relevant to any examination or investigation to answer such questions as the inspector thinks fit and to sign a declaration of the truth of his answers;
 - (j) to require the production of, inspect and take copies of, any entry in:
 - (i) any books or documents which by virtue of the relevant statutory provisions are required to be kept; and
 - (ii) any other books or documents which it is necessary for him to see for the purposes of any examination or investigation;
 - (k) to require any person to afford him such facilities and assistance with respect to any matter or things within that person's control or in relation to which that person has responsibilities as are necessary to enable the inspector to exercise any of the powers conferred on him by this section; and
 - (l) any other power which is necessary for the purpose of carrying into effect the relevant statutory provisions.
- Inspectors may serve two types of notice.

Improvement Notice

If an inspector is of the opinion that a person:

- (a) is contravening one or more of the relevant statutory provisions; or

- (b) has contravened one or more of those provisions in circumstances that make it likely that the contravention will continue or be repeated,

he may serve on him an Improvement Notice stating that he is of the opinion, specifying the provision or provisions as to which he is of that opinion, giving particulars of the reasons why he is of that opinion, and requiring the person to remedy the contravention or, as the case may be, the matters occasioning it within such period (ending not earlier than the period in which an appeal against the notice can be brought under section 24) as may be specified in that notice.

Prohibition Notices

Where an inspector is of the opinion that a work activity involves or will involve a risk of serious personal injury, he may serve a Prohibition Notice on the person in control of that activity.

A Prohibition Notice shall:

- (a) state that the inspector is of the said opinion;
- (b) specify the matters which in his opinion give or, as the case may be, will give rise to the said risk;
- (c) where in his opinion any of those matters involves or, as the case may be, will involve a contravention of any of the relevant statutory provisions, state that he is of that opinion, specify the provision or provisions as to which he is of that opinion, and give particulars of the reasons why he is of that opinion;
- (d) direct that the activities to which the notice relates shall not be carried on by or under the control of the person on whom the notice is served unless the matters specified in the notice have been remedied.

A direction given in a Prohibition Notice shall take immediate effect if the inspector is of the opinion, and states it, that the risk of serious personal injury is or, as the case may be, will be imminent, and shall have effect at the end of a period specified in the notice in any other case (deferred Prohibition Notice).



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



3(a) Tables and figures

Legal routes following an accident at work



3(b) Forms

Improvement Notice

Prohibition Notice

Enforcement authorities

The enforcing authorities for the HSWA and other health and safety legislation are:

- (a) the Health and Safety Executive (HSE), which is split into a number of specific inspectorates, e.g. Nuclear Installations, Agriculture, and National Industrial Groups (NIGs);
- (b) local authorities, principally through their environmental health departments; and
- (c) fire and rescue authorities, for certain fire-related legislation affecting workplaces.



1(b) The principal statutes

Health and Safety at Work etc. Act 1974

Guidance notes (HSE)

The HSE produce guidance on a very wide range of matters. Guidance notes are issued in six specific series:

- (a) general safety;
- (b) chemical safety;
- (c) environmental hygiene;
- (d) medical;
- (e) plant and machinery;
- (f) health and safety.

Guidance notes have no legal status and are not, generally, admissible as evidence in criminal proceedings.

Guidance notes are also issued with Regulations e.g. *Personal protective equipment* accompanying the Personal Protective Equipment at Work Regulations 1992.



1(e) HSE guidance notes

Indictable offences

Where there is sufficient evidence, certain offences can, on the decision of a Magistrates Court, be subject to committal proceedings through issue of an indictment, whereby an offender is committed to a Crown Court for trial.

Certain offences triable only on indictment are:

- (a) breaching any of the relevant statutory provisions; and
- (b) acquiring, or attempting to acquire, possessing or using an explosive article or substance.



1(a) Legal background

Burden of proof

Courts and tribunals

Delegated legislation

Duties (hierarchy of)

Enforcement arrangements

Summary offences



1(b) The principal statutes

Health and Safety at Work etc. Act 1974

Judicial precedent

Judicial precedent is defined as 'a decision of a tribunal to which some authority is attached'. A precedent may be authoritative or persuasive.

Authoritative precedents

These are the decisions which judges are bound to follow. There is no choice in the matter. A lower court, for example, is bound by the previous decision of a higher court.

Persuasive precedents

These are decisions which are not binding on a court but to which a judge will attach some importance. For example, decisions given by the superior courts in Commonwealth countries will be treated with respect in the English High Court.



1(a) Legal background

Burden of proof

Case law

Defences

Negligence

'Negligence' is defined as 'careless conduct injuring another'.

In a civil action for negligence, three specific facts must be proved by the claimant:

- (a) a duty of care is owed;
- (b) there has been a breach of that duty; and
- (c) injury, damage and/or loss has been sustained by the claimant as a result of that breach.

[*Lochgelly Iron & Coal Co Ltd v M'Mullen (1934) AC 1*]



1(a) Legal background

Breach of statutory duty

Defences

Duty of care

Contributory negligence

Courts and tribunals

Employers' duties (common law)

Neighbour Principle
Res ipsa loquitur
Torts
Vicarious liability
Volente non fit injuria

Neighbour Principle

This principle was established in *Commissioner for Railways v McDermott (1967) 1 AC 169*. Lord Gardner explained the position with regard to occupation of premises thus:

Occupation of premises is a ground of liability and not a ground of exemption of liability. It is a ground of liability because it gives some control over and knowledge of the state of the premises, and it is natural and right that the occupier should have some degree of responsibility for the safety of persons entering his premises with his permission. There is proximity between the occupier and such persons and they are his neighbours. Thus arises a duty of care.



1(a) Legal background

Duty of care
Employers' duties (common law)
Employers' liability
Negligence
Occupiers' liability

No-fault liability

This term implies there is no requirement to establish fault or intent in that a claimant is automatically compensated for injury, damage or loss by the state or some other organisation. It thus dispenses with or disregards the common law and statutory elements of liability.

Occupiers' liability

People who occupy land and premises, such as private individuals, local authorities, organisations, companies and shop keepers, owe a common duty of care to all persons who may visit their land or premises. Moreover, anyone who is injured whilst visiting or working on land or premises may be in a position to sue the occupier for damages, even though the injured person may not be his employee.

[Lord Gardner in *Commissioner of Railways v McDermott* (1967) 1 AC 169]

The law covering this area of civil law is the Occupiers' Liability Acts 1957 and 1984.

Occupiers' Liability Act 1957

Under the Occupiers' Liability Act (OLA) an occupier owes a common duty of care to all lawful visitors. This common duty of care is defined as 'a duty to take such care as in all the circumstances is reasonable to see that the visitor will be reasonably safe in using the premises for the purposes for which he is invited or permitted by the occupier to be there'.

Under the OLA, occupiers have a duty to erect notices warning visitors of imminent danger. The display of a warning notice does not, however, absolve an occupier from liability unless, in all the circumstances, it was sufficient to enable the visitor to be reasonably safe.

However, whilst an occupier may have displayed a notice under the provisions of the OLA, the chance of avoiding liability is not permitted as a result of the Unfair Contract Terms Act 1977. This Act states that it is not permissible to exclude liability for death or injury due to negligence by a contract or by a notice displayed in accordance with the OLA.

The OLA 1984 went on to clarify the situation relating to the display of warning notices. Whilst a duty may be discharged by the

display of a warning notice, such a notice must be particularly explicit in terms of stating, firstly, the hazard and, secondly, the precautions necessary on the part of persons exposed to that hazard. Moreover, the requirements outlined in a notice must be actively enforced by the occupier.

Generally, the actual display of a notice, the clarity, legibility and explicitness of a notice, and evidence of clearly reminding people of the message featured in the notice, may count to a certain extent as part of a defence when being sued by a visitor.



1(a) Legal background

Duty of care

Negligence

Neighbour Principle



1(b) The principal statutes

Health and Safety at Work etc. Act 1974

Occupiers' Liability Act 1957

Occupiers' Liability Act 1984

Precedents (see Judicial precedents)

Pre-trial review

A review of a claim in the County Court undertaken by the Registrar with the objective of identifying the key issues of a claim and any points of contention.



1(a) Legal background

Courts and tribunals

Principles of prevention

Schedule 1 of the Management of Health and Safety at Work Regulations specifies the *General principles of prevention* that must be applied where an employer implements any preventive

and protective measures arising from the risk assessment process.

These principles are:

- (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
- (g) giving appropriate instructions to employees.



1(c) Principal regulations

Management of Health and Safety at Work Regulations 1999

Prosecution

The bringing of a person before a court to answer a charge involving an alleged breach of the law. It is normal for the person charged with an offence to be served with a summons to attend court to answer the charge or charges in question.



1(a) Legal background

*Burden of proof
Courts and tribunals*

Enforcement arrangements

Indictable offences

Summary offences



1(b) The principal statutes

Health and Safety at Work etc. Act 1974

Relevant statutory provisions

The HSWA is an enabling Act comprising, in the main, general duties on specific groups, e.g. employers, manufacturers of articles for use at work. Section 15 of the HSWA enables the Secretary of State for Employment to make Regulations. The HSWA and Regulations are deemed to be 'the relevant statutory provisions'.

Schedule 1 of the HSWA defines 'the relevant statutory provisions' as:

- (a) Part 1 of the HSWA;
- (b) regulations made under Part 1;
- (c) the Acts contained in Schedule 1 of the HSWA e.g. Factories Act 1961; and
- (d) any regulations made under the above Acts.



1(a) The principal statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Management of Health and Safety at Work Regulations 1999

Res ipsa loquitur

A term meaning 'the facts speak for themselves' or 'the matter itself speaks', a phrase used in actions for injury occasioned by negligence where no proof is required of negligence beyond the accident itself.



1(a) Legal background

Negligence

Stare decisis

A term meaning 'let the decision stand', implying the need to stick to the decisions of past cases. *Stare decisis* is the basis for the doctrine of binding precedent.

Statement of claim

A statement, outlining the allegations against a defendant, and previously delivered to the defendant prior to civil proceedings.



1(a) Legal background

*Civil and criminal liability
Courts and tribunals*

Statement of health and safety policy

A formal document required to be prepared, and regularly revised, by an employer under the HSWA. The principal features of such a statement are:

- (a) statement of intent, which outlines the organisation's overall philosophy in relation to the management of health and safety, including objectives for ensuring legal compliance;
- (b) details of the organisation, which should include the chain of command, accountability and responsibility for health and safety; and
- (c) the arrangements, which include the procedures and systems for monitoring performance.



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



1(e) HSE guidance

Writing your health and safety policy statement: a guide to preparing a safety policy for a small business

Statutes and Regulations

Statutes (Acts of Parliament) are the principal written laws arising from the parliamentary process. Only Parliament can make, modify, amend or revoke statutes.

A statute frequently gives the Minister of Secretary of State power to make Regulations ('delegated' or 'subordinate' legislation). The majority of Regulations, such as the Provision and Use of Work Equipment Regulations, are based on the requirements of European Directives, and are listed numerically as Statutory Instruments.



1(b) The principal statutes



1(c) Principal regulations

Strict liability (see Absolute liability)

Summary offences

These are offences which may be dealt with in a court of summary jurisdiction, e.g. a Magistrates Court. Such offences are mainly of a minor nature.



1(a) Legal background

Courts and tribunals



1(b) The principal statutes

Health and Safety at Work etc. Act 1974

Temporary employment

Temporary employment arises where an employee of one organisation may be hired out or seconded to another employer to undertake a specific task. The test as to whether an employee has been 'temporarily employed' is based on the 'control test',

namely the extent of the control the temporary employer can exert in that employee's actual undertaking of the specific task involved.

[Mersey Docks & Harbour Board v Coggins and Griffiths (Liverpool) Ltd (1974) AC1]

Regulation 12 of the Management of Health and Safety at Work Regulations, *Persons working in host employers' or self-employed persons' undertakings*, covers the criminal law requirements of temporary employment.



1(c) Principal regulations

Management of Health and Safety at Work Regulations 1999

Torts

A tort is defined as a 'civil wrong'. The three principal torts are negligence, nuisance and trespass.

The rule of common law is that everyone owes a duty to everyone else to take reasonable care so as not to cause them foreseeable injury. Tortious liability arises from the breach of a duty primarily fixed by the law. Such duty is towards persons generally and its breach is redressible by an action for unliquidated damages.



1(a) Legal background

Breach of statutory duty

Defences

Duty of care

Negligence

Vicarious liability

The doctrine of vicarious liability is based on the fact that if an employee, whilst acting in the course of his employment,

negligently injures another employee, or the employee of a contractor working on the premises, or even a member of the public, the employer, rather than the employee, will be liable for that injury. Vicarious liability rests on the employer simply as a result of the fact that he is the employer and is deemed to have ultimate control over the employee in a 'master and servant' relationship.

The key to liability is that the accident causing the injury, disease or death arises, firstly, *out of* and, secondly, *in the course of*, employment. This does not normally include the time travelling to and from work, although it would apply if the mode of transport was within the employer's control or was provided by the employer or by arrangement with the employer.



1(a) Legal background

Duty of care

Negligence

Volente non fit injuria

This term means 'to one who is willing, no harm is done', more commonly referred to as 'voluntary assumption of risk'. As such it is a complete defence and no damages would be payable to a claimant in respect of a claim for negligence.

However it is a very limited defence based on the employee voluntarily assuming a risk as part of his normal work activities.

[*Smith v Baker & Sons (1891) AC 305*]



1(a) Legal background

Defences

Negligence

1(b)

The principal statutes

Administration of Justice Act 1982

Liabilities of persons

- Where death is caused by any wrongful act, neglect or default which is such as would (if death had not ensued) have entitled the person injured to maintain an action and recover damages, the person who would have been liable if death had not ensued, shall be liable for damages.
- A lump sum is payable to defendants
- Subsequent remarriage, or the prospect of remarriage, of a dependant must not be taken into account in assessing fatal damages.

Disability Discrimination Act 1995

Responsible for enforcement

Tribunals

Level of duty

Absolute

Duties of employers

- Make 'reasonable adjustments' where working arrangements and/or the physical features of a workplace cause a substantial disadvantage for a disabled person, including:
 - altering working hours
 - allowing time off for rehabilitation or treatment
 - allocating some of the disabled person's duties to someone else
 - transferring the disabled person to another vacancy or another place of work
 - giving or arranging training
 - providing a reader or interpreter

- acquiring or modifying equipment or reference manuals
 - adjusting the premises.
- In considering physical features of a workplace, take into account:
 - those arising from the design or construction of a building
 - exits or accesses to buildings
 - fixtures, fittings, furnishings, equipment or materials
 - any other physical element or quality of land or the premises.
- Make reasonable adjustments to:
 - arrangements to determine who is offered employment
 - terms and conditions or other arrangements on which employment, promotions, transfer, training or other benefits are offered.

Employers' Liability (Compulsory Insurance) Act 1969

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Duties of employers

- Insure against claims by employees suffering personal injury, damage or loss
- Display Certificate of Insurance conspicuously at the workplace
- Disclose all appropriate information to an insurer
- Ensure policy is an approved policy by virtue of the Employers' Liability (Compulsory Insurance) General Regulations 1971
- Make policy and certificate available to an enforcement officer.

Duties of insurers

- Ensure that the policy states that any person under a contract of service or apprenticeship who sustains injury, disease or death caused during the period of insurance and arising out of the course of employment will be covered for any legal liability on the part of his employer to pay compensation.

Employers' Liability (Defective Equipment) Act 1969

Liabilities of employers

- Strictly liable for injuries to employees caused by defective equipment, where the defect is wholly or in part the result of manufacture, that is, by a third party
- An injury suffered by an employee is to be attributable to negligence by an employer in the following situations where
 - an employee suffers personal injury (including death) in the course of employment in consequence of a defect in equipment
 - the equipment was provided by the employer for use in the employer's business
 - the defect is attributable, wholly or in part, to the fault of a third party, whether identified or not, such as a manufacturer, supplier, distributor or importer
- Strictly liable for defects in manufacture and supply.

Employment Rights Act 1996

Duties of employers with respect to 'health and safety cases'

- 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 grounds 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 relating to health and safety at work or a 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;
 - (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 potential harmful to health or safety;
 - (d) in circumstances of danger which the employee reasonably believed to be serious and imminent and which he could not reasonably have been expected to avert, he left (or proposed to leave) or (while the danger persisted) refused to return to his place of work or any dangerous part of his place of work; or
 - (e) in circumstances of danger which the employee reasonably believed to be serious and imminent, he took (or proposed to take) appropriate steps to protect himself or other persons from danger.
- For the purposes of sub-section (e) above, whether steps which an employee 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.
 - An employee is not to be regarded as having been subjected to any detriment on the ground specified in sub-section (e) above if the employer shows that it was (or would have been) so negligent for the employee to take the steps which

he took (or proposed to take) that a reasonable employer might have treated him as the employer did.

Fatal Accidents Act 1976

Liabilities of persons

- In the case of fatal injury, compensation is payable to the dependants for death negligently caused in respect of financial loss suffered by them as a result of the death.

Health and Safety at Work etc. Act 1974

Responsible for enforcement

HSE, local authorities

Level of duty

Reasonably practicable

Duties of employers to employees

- General duty to ensure safety, health and welfare of all persons at work
- Extended duties in respect of, provision of:
 - safe plant and systems of work
 - arrangements for use, handling, storage and transport of articles and substances
 - information, instruction, training and supervision
 - maintenance of workplace plus safe access and egress
 - maintenance of a safe and healthy working environment with adequate welfare amenities
- Prepare and promote a Statement of Health and Safety Policy (A)
- Consult with appointed safety representatives.

Duties of employers to non-employees

- Conduct of undertaking as to protect non-employees
- Ensure provision of information to non-employees on hazards and precautions.

Duties of occupiers/controllers of premises

- Ensure provision of safe premises, access and egress, plant and substances in the premises or provided for use.

Duties of designers, manufacturers, etc. of articles for use at work

- Ensure safe design and construction of safe articles
- Ensure testing and examination of articles
- Ensure provision of information about articles
- Undertake research to minimise risks.

Duties of erectors, installers, etc.

- Ensure safe erection/installation.

Duties of manufacturers, etc. of substances for use at work

- Ensure safety and freedom from health risks of substances
- Carry out testing and examination of substances
- Make available adequate information about results of tests.

Duties of employees

- Take reasonable care of themselves and others (A)
- Co-operate with employer with respect to duties imposed on him (A).

Duties of all persons

- Not to intentionally or recklessly interfere with or misuse anything provided in the interests of health, safety or welfare in pursuance of the relevant statutory provisions.

Penalties

Maximum £20 000 for breach of section 2–6 (Magistrates Court)

Maximum £5000 for other offences (Magistrates Court)

Unlimited fines in higher courts

Imprisonment for breach of improvement notice and/or prohibition notice.

**3(c) Forms**

Improvement notice

Prohibition notice

Occupiers' Liability Act 1957*Duties of occupiers*

- Owe a common duty to take such care as in all the circumstances of the case is reasonable to see that a visitor will be

reasonably safe in using the premises for the purposes for which he is invited or permitted by the occupier to be there

- Applies to all persons lawfully on the premises in respect of dangers due to the state of the premises or to things done or omitted to be done on them
- Must erect notices warning visitors of any imminent danger
- Be prepared for children to be less careful than adults.



1(a) Legal background

Duty of care

Occupiers' liability

Occupiers' Liability Act 1984

Duties of occupiers

- Owe a common duty of care in respect of trespassers, namely persons who may have lawful authority to be in the vicinity or not, who may be at risk of injury on an occupier's premises
- Display notices where there may be a risk to simple trespassers and enforce the requirements of such notices.



1(a) Legal background

Duty of care

Negligence

Occupiers' liability

Social Security Act 1975

Duties of employers

- Must provide and keep readily available an accident book in an approved form in which the appropriate particulars of all accidents can be recorded
- The appropriate particulars include:
 - name and address of the injured person
 - date and time of the accident

- the place where the accident happened
- the cause and nature of the injury
- the name and address of any third party giving the notice
- Must retain such books, when completed, for three years after the date of the last entry
- Must investigate all accidents of which notice is given by employees (in the Accident Book) and must record any variations between the findings of this investigation and the particulars given in the notification
- Must, on request from the Department of Social Security (DSS), furnish the DSS with such information as may be required relating to accidents in respect of which benefit may be payable.

Duties of employees

- Must notify their employer of any accident resulting in personal injury in respect of which benefit may be payable; notification may be given by a third party if the employee is incapacitated
- Must enter the appropriate particulars of all accidents in an accident book; entry in the accident book may be made by a third party if the employee is incapacitated.



3(c) Forms

Accident book

Unfair Contract Terms Act 1977

Duties of persons

- Cannot, by reference to any contract term or to a notice given to persons, generally exclude or restrict liability for death or a personal injury resulting from negligence.

1(c)

Principal regulations

Building Regulations 2000

Responsible for enforcement

Local authorities

Level of duty

Absolute

Duties of persons

- Building work must be carried out with adequate and proper materials and in a workmanlike manner
- When intending to carry out building work or to make a material change of use shall:
 - give notice to the local authority
 - deposit full plans with the local authority
- A building notice shall state the name and address of the person intending to carry out the work and shall be signed by him and shall contain or be accompanied by:
 - a statement
 - a description of the proposed building work or material change of use
 - particulars of the location of the building
- In the case of an erection of a building, a building notice shall be accompanied by:
 - a plan showing the location of the building in relation to other buildings and streets
 - a statement specifying the number of storeys
 - particulars of provision to be made for drainage
- Specific requirements apply in the case of building work which involves the insertion of insulating material into the cavity walls of a building and work involving the provision of a hot water storage system

- Shall give the local authority notice:
 - prior to commencing building work and not cover up any foundation work or drainage work
 - after work has been completed
 - prior to occupation of a building
- Calculate the energy rating of a dwelling and give notice of that rating to the local authority

Duties of local authority

- Give a completion certificate on receipt of notification that building work has been completed or that a building has been partly occupied before completion
- Where satisfied that the relevant requirements of Schedule 1 specified in the certificate have been satisfied, give a certificate to that effect
- Make such tests of drains or private sewers as may be necessary
- Take samples of building materials in the carrying out of building work
- Take action in the case of unauthorised building work.

Schedule 1 – Requirements

Schedule 1 lays down requirements with regard to:

- A – Structure
 - Loading
 - Ground movement
 - Disproportionate collapse
- B – Fire safety
 - Means of warning and escape
 - Internal fire spread (linings)
 - Internal fire spread (structure)
 - External fire spread
 - Access and facilities for the fire service
- C – Site preparation and resistance to moisture
 - Preparation of site
 - Dangerous and offensive substances
 - Subsoil drainage
 - Resistance to weather and ground moisture
- D – Toxic substances
 - Cavity insulation

- E – Resistance to the passage of sound
 - Airborne sound (walls)
 - Airborne sound (floors and stairs)
 - Impact sound (floors and stairs)
- F – Ventilation
 - Means of ventilation
 - Condensation in roofs
- G – Hygiene
 - Sanitary conveniences and washing facilities
 - Bathrooms
 - Hot water storage
- H – Drainage and waste disposal
 - Foul water drainage
 - Cesspools, septic tanks and settlement tanks
 - Rainwater drainage
 - Solid waste storage
- J – Heat producing appliances
 - Air supply
 - Discharge of products of combustion
 - Protection of building
- K – Protection from falling, collision and impact
 - Stairs, ladders and ramps
 - Protection from falling
 - Vehicle barriers and loading bays
 - Protection from collision with open windows etc.
 - Protection against impact from and trapping by doors
- L – Conservation of fuel and power
- M – Access and facilities for disabled people
 - Definition of ‘disabled people’
 - Access and use
 - Sanitary conveniences
 - Audience or spectator seating
- N – Glazing – Safety in relation to impact, opening and cleaning
 - Protection against impact
 - Manifestation of glazing
 - Safe opening and closing of windows etc.
 - Safe access for cleaning windows etc.

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Defence

All reasonable precautions and all due diligence

Duties of suppliers

- Not supply a substance or preparation dangerous for supply (SPDS) unless it has been classified
- Provide recipient of SPDS with a safety data sheet
- Keep safety data sheet up to date and revise as necessary
- Ensure substance is not advertised unless mention made in the advertisement of hazards presented by the substance
- Supply in a package suitable for that purpose
- Comply with labelling requirements for packages and for certain preparations, including methods of marking and labelling
- In the case of specified substances and preparations, the provision of child-resistant fastenings and tactile warning devices to receptacles
- Retain classification data for SPDS, making copies available to the appropriate enforcing authority
- Notify constituents of certain preparations dangerous for supply to the Poisons Advisory Centre.



1(e) HSE guidance notes

Approved Classification and Labelling Guide

CHIP for everyone



3(a) Tables and figures

Categories of danger

Safety data sheets

Children (Protection at Work) Regulations 1997

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Duties of employers

- Must not employ a child below the minimum age (14 years) in any work other than as employee of his parent or guardian in light agricultural or horticultural work on an occasional basis
- Must not employ a child on anything other than 'light work', i.e. work which does not jeopardise a child's safety, health, development, attendance at school or participation in work experience
- May employ children over the age of 13 years in categories of light work specified in local authority byelaws
- Must not employ a child over the age of 14 years beyond the specified hours, including the specified rest periods
- Must provide at least one two-week period in a child's school holidays free from any employment
- Must not allow a child going abroad for the purposes of performing for profit, for the purposes of taking part in sport or working as a model in circumstances where payment is made, without a local authority licence.

Confined Spaces Regulations 1997

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Duties of employers

- Avoid entry to confined spaces wherever possible, for example, doing the work from outside

- Follow a safe system of work if entry is unavoidable
- Put in place adequate emergency arrangements before work starts, which will also safeguard rescuers.



1(d) Approved codes of practice

Safe work in confined spaces



1(e) HSE guidance notes

Safe work in confined spaces

Construction (Design and Management) Regulations 1994

Responsible for enforcement

HSE

Level of duty

Absolute

Duties of clients

- Not to appoint a person as his agent unless reasonably satisfied as to his competence to perform the duties imposed on a client
- Make a declaration to the HSE of the appointed agent's name and address
- Appoint a competent planning supervisor and principal contractor
- Ensure construction phase of any project does not start unless a health and safety plan has been prepared (RP)
- Provide planning supervisor with information relevant to his functions about the state or condition of any premises at or on which construction work is or is intended to be carried out
- Take steps to ensure information in the health and safety file is kept available for inspection by any person who may need information
- When disposing of interest in a property, to transfer the health and safety file to the new owner.

Duties of developers

- In the case of domestic clients, to act on behalf of same to ensure compliance with regulations.

Duties of designers

- Ensure that any design he prepares includes among the design considerations the need:
 - to avoid foreseeable risks
 - to combat risks at source
 - to give priority to measures which will protect all persons at work
- Ensure that the design includes adequate information about any aspect of the project which may affect health and safety
- Co-operate with the planning supervisor and any other designer to enable compliance with the relevant statutory provisions
- Provide adequate information where risks cannot be avoided and alert the client to his duties.

Duties of planning supervisors

- Overall responsibility for co-ordinating the health and safety aspects of the design and planning stage of a project
- Ensure notice of project is given to the HSE
- Ensure design of any structure takes account of the three design considerations above (RP)
- Ensure co-operation between designers
- Provide advice to client to enable him to comply with his duties
- Ensure health and safety file is prepared in respect of each structure in the project, reviewing same when necessary
- Ensure health and safety file is delivered to the client on completion of construction work
- Ensure a health and safety plan in respect of a project has been prepared within the specified time.

Duties of principal contractors

- Ensure construction phase health and safety plan is prepared and contains prescribed information
- Take reasonable steps to ensure co-operation between contractors to enable compliance with the relevant statutory provisions

- Co-ordinate the activities of contractors to ensure compliance with the relevant statutory provisions
- Ensure any contractor complies with any rules contained in the health and safety plan (RP)
- Ensure only authorised persons are allowed into any premises where construction work is being undertaken
- Ensure any particulars required to be given in any notice under regulation 7 are displayed in readable condition in a suitable position
- Provide the planning supervisor with appropriate information
- Give directions to any contractor to enable the principal contractor to comply with his duties
- Include in the construction phase health and safety plan 'rules for the management of the construction work'
- Provide comprehensible information to contractors on the risks arising from the construction work
- Ensure every contractor who is an employer provides his employees with appropriate information and suitable training (RP)
- Seek advice from, and views of, persons at work
- Take account of health and safety issues when preparing and presenting tenders.

Duties of contractors

- Co-operate with the principal contractor to enable each of them to comply with the relevant statutory provisions
- Promptly provide the principal contractor with information which might affect the health or safety of any person
- Comply with the directions of the principal contractor
- Comply with any rules applicable to him in the health and safety plan
- Promptly provide the principal contractor with information in relation to any injury, death, condition or dangerous occurrence which the contractor is required to notify under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations

- Provide the principal contractor with information which needs to be supplied to the planning supervisor.

Duties of employers

- Not to cause to be prepared a design in respect of a project unless he has taken all reasonable steps to ensure that the client for that project is aware of the duties to which the client is subject by virtue of these regulations and practical guidance from the HSC
- Not to cause any or permit any employee to work on construction work unless that person has been provided specific information.

Duties of persons

- Ensure designer is competent to prepare the design
- Ensure contractor has the competence to carry out, or, as the case may be, manage that construction work
- Prior to arranging for a contractor to carry out or manage construction work, ensure he is reasonably satisfied that the contractor has allocated, or will allocate, adequate resources to enable the contractor to comply with the requirements and prohibitions imposed upon him by or under the relevant statutory provisions
- Prior to appointment of a planning supervisor, ensure client is reasonably satisfied that the person he intends to appoint has allocated, or will allocate, adequate resources to enable him to perform the functions of planning supervisor.



1(d) Approved codes of practice

Managing construction for health and safety



1(e) HSE guidance notes

Managing contractors



3(a) Tables and figures

*Construction (Design and Management) Regulations 1994:
How to decide when the exceptions to the CDM Regulations apply*



3(b) Forms

*Construction (Design and Management) Regulations 1994:
Notification of Project (Form 10)*

Construction (Head Protection) Regulations 1989

Responsible for enforcement

HSE

Level of duty

Absolute

Duties of employers

- Provide suitable head protection for their employees
- Ensure maintenance of head protection and replacement of parts as necessary
- Ensure head protection is worn
- Make rules or directions as to the wearing of head protection in specified circumstances.

Duties of employees

- Report loss of, or defect in, head protection to employer.



1(a) Legal background

Contractors



1(e) HSE guidance notes

A guide to the Construction (Head Protection) Regulations 1989

Construction (Health, Safety and Welfare) Regulations 1996

Responsible for enforcement

HSE

Level of duty

Absolute

Duties of employers

- Ensure a safe place of work and safe means of access to and from that place of work
- Prevent falls from heights by physical precautions or use of fall arrest equipment

- Provide and maintain physical precautions to prevent falls through fragile materials
- Ensure erection of scaffolds, access equipment, harnesses and nets is under the supervision of a competent person
- Ensure safe use of ladders
- Take steps to prevent materials or objects falling
- Take precautions to prevent people from being struck by falling objects
- Prohibit the throwing of any materials or objects from a height if they could strike someone
- Store materials and equipment safely
- Prevent accidental collapse of new or existing structures or those under construction
- Ensure any dismantling or demolition is planned and carried out in a safe manner under the supervision of a competent person
- Only fire explosive charges after ensuring no one is exposed to risk or injury
- Prevent the collapse of ground both in and above excavations
- Identify and prevent risk from underground cables and other services
- Ensure cofferdams and caissons are properly designed, constructed and maintained
- Take steps to avoid people falling into water or other liquid (RP)
- Ensure PPE and rescue equipment is immediately available for use and maintained in the event of a fall
- Ensure transport by water is under the control of a competent person
- Ensure construction sites are organised so that pedestrians and vehicles can move safely
- Ensure routes are suitable and sufficient for people or vehicles using them
- Prevent or control the movement of vehicles
- Ensure arrangements for giving warnings of any possible dangerous movements of vehicles
- Ensure safe operation of vehicles

- Ensure doors and gates which could present danger are provided with suitable safeguards
- Prevent risk from fire, explosion, flooding and asphyxiation
- Provide emergency routes and exits
- Provide arrangements for dealing with emergencies, including evacuation procedures
- Where necessary, provide fire-fighting equipment, fire detectors and alarm systems
- Provide sanitary and washing facilities and an adequate supply of drinking water
- Provide rest facilities and facilities to change and store clothing
- Ensure sufficient fresh or purified air is available at every workplace and that associated plant is capable of giving visible or audible warning of failure
- Ensure a reasonable working temperature is maintained in indoor workplaces
- Provide facilities for protection against adverse weather conditions
- Ensure suitable and sufficient emergency lighting
- Ensure suitable and sufficient lighting is available, including secondary lighting where appropriate
- Maintain sites in good order and in a reasonable state of cleanliness
- Ensure perimeter of a site is marked by suitable signs
- Ensure all plant and equipment is safe, of sound construction and used and maintained so that it remains safe
- Ensure construction activities where training, technical knowledge or experience is necessary to reduce risks are only carried out by people who meet these requirements or, if not, are supervised by those with appropriate training, knowledge or experience
- Before work at height, on excavations, cofferdams or caissons begins, ensuring the place of work is inspected and, at subsequent specified periods, by a competent person
- Following inspections, ensuring written reports are made by the competent person.



1(a) Legal background

Contractors



1(d) Approved codes of practice

Managing construction for health and safety



1(e) HSE guidance notes

Avoiding danger from underground services

Backs for the future: safe manual handling in construction

Electrical safety on construction sites

Fire safety in construction: guidance for clients, designers and those managing and carrying out construction work involving significant risks

Health and safety in construction

Health and safety in excavations

Health and safety in roof work

Maintaining portable and transportable electrical equipment

The safe use of vehicles on construction sites

Work with asbestos cement



2(b) Hazard checklists

Construction activities



3(a) Tables and figures

Demolition methods

Places of work requiring inspection by a competent person under Regulation 29(1) of the Construction (Health, Safety and Welfare) Regulations 1996

Control of Asbestos at Work Regulations 2002

Responsible for enforcement

HSE and local authorities

Level of duty

Absolute

Defence

All reasonable precautions and all due diligence

Duties of duty holders

- Undertake suitable and sufficient assessment of asbestos risks

- Review assessment if no longer valid or significant change in the premises
- Record conclusions of the assessment
- Where asbestos is, or is liable to be, present, determine risk from asbestos, prepare written plan indicating parts of premises concerned and measures for managing the risk; plan to be reviewed and revised at regular intervals.

Duties of employers

- Before commencing work liable to create asbestos exposure, identify by analysis or otherwise the type of asbestos involved or, assuming it is not chrysotile alone, has treated it accordingly
- Undertake a suitable and sufficient assessment of asbestos risks
- Record significant findings of the assessment
- Implement steps to meet requirements of regulations
- Prepare suitable written plan of work before commencing work
- Notify enforcing authority of particulars specified in Schedule 1 at least 14 days before commencing work
- Provide information, instruction and training to employees
- Prevent exposure of employees to asbestos (RP)
- Where not RP to prevent, reduce exposure to lowest level RP by measures other than the use of RPE and ensure number of employees exposed is as low as is RP
- In manufacturing processes, substitute for asbestos a safe substance or one of lesser risk (P)
- Where not P to substitute ensure, firstly, adequate design of processes, systems and engineering controls and use of suitable equipment and materials and, secondly, control of exposure at source, including adequate ventilation systems and organisational measures
- Where not RP to reduce exposure to below control limits then, in addition, provide RPE
- Take immediate steps to remedy situation where control limit is exceeded

- Where used in, or produced by, a work process, quantity of asbestos and materials containing asbestos, to be reduced to as low a level as is RP
- Ensure control measures are used or applied (RP)
- Maintain control measures in an efficient state, in efficient working order and in good repair
- Ensure thorough examination and test of LEV systems and RPE at suitable intervals by a competent person
- Maintain record of above examinations and tests
- Provide adequate and suitable protective clothing for employees
- Ensure installation of procedures for dealing with an accident, incident or emergency related to the use, removal or repair of asbestos, provide information on emergency arrangements and ensure warning and other communication systems are established
- Designate asbestos areas and respirator zones, clearly and separately demarcated and identified by notices; control access; prohibit eating, drinking and smoking in such areas
- Monitor exposure of employees to asbestos; maintain records
- Ensure compliance with criteria for air testing and analysis of samples
- Maintain personal health records; keep available for at least 40 years
- Ensure employees exposed to asbestos are under adequate medical surveillance; provide facilities for medical surveillance
- Ensure suitable person informs employees of identifiable disease or adverse health effect as a result of exposure
- Provide adequate washing and changing facilities
- Ensure that raw asbestos or waste containing asbestos is not stored, received or distributed within a workplace unless in a clearly marked sealed container.

Duties of suppliers

- Ensure suitable labelling of products for use at work containing asbestos.

Duties of employees

- Make full and proper use of any control measure, return RPE to accommodation after use and report defects in RPE
- Present themselves for medical examination and tests, provide information to relevant doctor.

**1(d) Approved codes of practice***Control of asbestos at work**The management of asbestos in non-domestic premises**Work with asbestos insulation, asbestos coating and asbestos insulation board**Work with asbestos that does not normally require a licence***1(e) HSE guidance notes***A comprehensive guide to managing asbestos in premises**Asbestos essentials task manual**Introduction to asbestos essentials**Work with asbestos cement*

Control of Lead at Work Regulations 2002

Responsible for enforcement

HSE

Level of duty

Absolute

Duties of employers

- Not to use a glaze other than a leadless glaze or low solubility glaze in the manufacture of pottery
- Not to employ a young person or woman of reproductive capacity in any activity specified in Schedule 1
- Not to carry out work which is liable to expose any employees to lead unless he has made a suitable and sufficient assessment of the risks to the health of those employees and of the steps that need to be taken to meet the requirements of the Regulations
- Review any risk assessment if no longer valid and in specified circumstances

- Prevent, or where this is not reasonably practicable, adequately control exposure of employees to lead
- Avoid the use of lead by replacing it with a substance or process which eliminates or reduces the risk to health (RP)
- Provide employees with suitable and sufficient protective clothing
- Control of exposure, so far as the inhalation of lead is concerned, shall only be treated as being adequate if the occupational exposure limit is not exceeded or, where it is exceeded, the employer identifies the reasons and takes immediate steps to remedy the situation
- PPE to comply with the Personal Protective Equipment Regulations and, in the case of RPE, be of an approved type or conform to a standard approved by the HSE
- Take all reasonable steps to ensure any control measure, other thing or facility is properly used or applied
- Ensure employees do not eat, drink or smoke in any place contaminated, or liable to be contaminated, by lead (RP)
- Maintain plant and equipment, including engineering controls and personal protective equipment, in an efficient state, in efficient working order, in good repair and in a clean condition
- Ensure systems of work and supervision and any other measures are reviewed at suitable intervals and revised if necessary
- Where engineering controls are provided, ensure thorough examination and testing is carried out:
 - in the case of local exhaust ventilation plant, at least once every 14 months
 - in any other case, at suitable intervals
- Where RPE is provided, ensure that thorough examination and tests are carried out at suitable intervals
- Keep suitable records of the above examinations and tests for at least 5 years from the date on which it was made
- PPE to be properly stored, checked at suitable intervals, repaired or replaced as necessary
- PPE which is contaminated to be kept apart from uncontaminated PPE

- Where there is risk of significant exposure to lead, ensure any concentration in air to which employees are exposed is measured in accordance with a suitable procedure at least every 3 months
- Ensure a suitable record of monitoring is maintained
- Provide medical surveillance for each employee who is or is liable to be exposed to lead
- Maintain health record of exposed employees for 40 years after the date of the last entry
- Provide employees with suitable and sufficient information, instruction and training
- Provide specific information and training
- Ensure arrangements to deal with accidents, incidents and emergencies.

Duties of employees

- Make full and proper use of any control measure, other thing or facility provided and, where relevant,
 - take all reasonable steps to ensure it is returned after use to any accommodation provided for it and
 - if he discovers a defect therein, report it forthwith to his employer
- Not eat, drink or smoke in any place which he has reason to believe is contaminated by lead.



1(d) Approved codes of practice

Control of lead at work

Control of Major Accident Hazards Regulations 1999

Responsible for enforcement

HSE and local authorities

Level of duty

Absolute

Duties of operators

- Take all measures necessary to prevent major accidents and limit their consequences to persons and the environment
- Prepare and keep a document setting out policy with respect to the prevention of major accidents (a 'major accident prevention policy document')
- Within a reasonable period of time prior to the start of construction of an establishment, send a notification to the competent authority containing the information specified in Schedule 3
- Notify the competent authority in the event of:
 - any significant increase in the quantity of dangerous substances notified
 - the nature of physical form, the processes employing them
 - any other information notified to the competent authority in respect of the establishment
- Within a reasonable period of time prior to the start of construction, send a safety report to the competent authority
- Review the safety report:
 - at least every 5 years
 - whenever necessary because of new facts or to take account of new technical knowledge about safety matters
 - whenever a change to the safety management system has been made which could have significant repercussions with respect to the prevention of major accidents or the limitation of consequences of major accidents to persons and the environment
- Prepare an emergency plan (an 'on-site emergency plan')
- Supply information to the local authority and any additional information to enable the off-site emergency plan to be prepared.

Duties of persons who have prepared emergency plans

- Shall at intervals not exceeding 3 years:
 - review and revise the plan
 - test the plan and take reasonable steps to arrange for the emergency services to participate in the test

- Any such review shall take into account changes occurring in the establishment to which the plan relates and within the emergency services concerned, new technical knowledge, and knowledge concerning the response to major accidents
- Take reasonable steps to put the emergency plan into effect without delay when:
 - a major accident occurs or
 - an uncontrolled event occurs which could reasonably be expected to lead to a major accident
- Provide information to members of the public who are in an area liable to be affected by a major accident which area has been notified to the operator by the competent authority
- Consult the local authority with regard to information to be provided to the above members of the public.

Duties of local authority

- Prepare an emergency plan (an 'off-site emergency plan') in respect of the establishment
- Consult the operator, the competent authority, the emergency services, each health authority for the area in the vicinity of the establishment and members of the public
- May charge the operator a fee for performing its functions.

Duties of competent authority

- In view of information contained in a safety report exempt a local authority from the requirement to prepare an off-site emergency plan.



2(a) Health and safety in practice

Major incidents

Control of Noise at Work Regulations 2005

Responsible for enforcement
HSE and local authorities

Level of duty

Absolute and reasonably practicable

Defence

None

Duties of employers

- Where work is liable to expose employees to noise at or above a lower exposure action value, an employer shall make a suitable and sufficient assessment of the risk from the noise to the health and safety of those employees
- The risk assessment shall identify the measures which need to be taken to comply with these Regulations
- Assessment of noise shall be by means of:
 - (a) observation of specific work practices
 - (b) reference to relevant information on probable levels of noise corresponding to any equipment used and
 - (c) if necessary, measurement of the level of noise to which his employees are likely to be exposed
- Assessment shall identify whether any employees are likely to be exposed to noise at or above;
 - (a) a lower exposure action value (LEAV) i.e.
 - (i) a daily or weekly personal noise exposure of 80 dB (A-weighted) or
 - (ii) a peak sound pressure of 135 dB (C-weighted)
 - (b) an upper exposure action value (UEAV), i.e.
 - (i) a daily or weekly personal noise exposure of 85 dB (A-weighted) and
 - (ii) a peak sound pressure of 137 dB (C-weighted) or
 - (c) an exposure limit value (ELV), i.e.
 - (i) a daily or weekly personal noise exposure of 87 dB (A-weighted) and
 - (ii) a peak sound pressure of 140 dB (C-weighted)
- Risk assessment shall include consideration of:
 - (a) the level, type and duration of exposure, including any exposure to peak sound pressure
 - (b) effects of exposure on employees or groups of employees whose health is at particular risk from such exposure
 - (c) any effects on the health and safety of employees resulting from the interaction between noise and the

use of ototoxic substances at work, or between noise and vibration (P)

- (d) any indirect effects on the health and safety of employees resulting from the interaction between noise and audible warning signals or other sounds that need to be audible in order to reduce risk at work
- (e) any information provided by manufacturers of work equipment
- (f) the availability of alternative equipment designed to reduce the emission of noise
- (g) any extension of exposure to noise at the workplace beyond normal working hours, including exposure in rest facilities supervised by the employer
- (h) appropriate information obtained following health surveillance and
- (i) the availability of personal hearing protectors with adequate attenuation characteristics
- Review risk assessment regularly and forthwith if:
 - (a) there is reason to suspect it is no longer valid or
 - (b) there has been a significant change in the work to which it relates, and where, as a result of review, changes to the risk assessment are required, those changes shall be made
- Consult the employees concerned or their representatives on the assessment of risk.
- Record:
 - (a) significant findings of the risk assessment and
 - (b) the measures he has taken and which he intends to take to meet requirements of regulations 6 (elimination or control of exposure), 7 (hearing protection) and 10 (information, instruction and training)
- Ensure risk is either eliminated at source or, where not RP, reduced to as low a level as is RP
- If an employee is likely to be exposed to noise at or above a UEAV, reduce exposure to as low a level as is RP by establishing and implementing a programme of organisational and technical measures, excluding the provision of personal hearing protectors, which is appropriate to the activity

- Ensure the action taken in accordance with the above is based on the general principles of prevention set out in Schedule 1 to the MHSWR 1999 and shall include consideration of:
 - (a) other working methods which reduce exposure to noise
 - (b) choice of appropriate work equipment emitting the least possible noise, taking account of the work to be done
 - (c) the design and layout of workplaces, work stations and rest facilities
 - (d) suitable and sufficient information and training for employees, such that work equipment may be used correctly, in order to minimise exposure to noise
 - (e) reduction of noise by technical means
 - (f) appropriate maintenance programmes for work equipment, the workplace and workplace systems
 - (g) limitation of the duration and intensity of exposure to noise and
 - (h) appropriate work schedules with adequate rest periods
- Shall:
 - (a) ensure employees are not exposed to noise above an ELV or
 - (b) if an ELV is exceeded forthwith:
 - (i) reduce exposure to noise to below the ELV
 - (ii) identify the reason for that ELV being exceeded and
 - (iii) modify the organisational and technical measures taken to prevent it being exceeded again
- Ensure, where rest facilities are made available to employees, exposure to noise in these facilities is reduced to a level suitable for their purpose and conditions of use
- Adapt any measure taken to take account of any employee or group of employees whose health is likely to be particularly at risk from exposure to noise
- Consult employees or their representatives on measures taken to eliminate or control exposure to noise
- Make personal hearing protectors (PHP) available upon request to any employee who carries out work which is likely to expose him to noise at or above a LEAV

- Provide PHP to any employee so exposed where unable by other means to reduce the levels of noise to below a UEAV
- Ensure that in any area where an employee is likely to be exposed to noise at or above a UEAV:
 - (a) the area is designated a Hearing Protection Zone (HPZ)
 - (b) the area is demarcated and identified by means of the appropriate sign
 - (c) access is restricted where this is practicable and the risk from exposure justifies it
 - (d) no employee enters a HPZ unless wearing PHP
- Any PHP made available or provided shall be selected:
 - (a) so as to eliminate the risk to hearing or reduce the risk (SFRP) and
 - (b) after consultation with employees or their representatives
- Ensure anything provided in compliance with duties under these Regulations is:
 - (a) fully and properly used (P)
 - (b) maintained in an efficient state, in efficient working order and in good repair
- Where risk assessment identifies hearing risk, ensure such employees are placed under suitable health surveillance, which shall include testing of hearing
- Make and maintain health record of above employees
- Allow employees access to personal health records
- Provide enforcement authority with copies of health records
- Where an employee has identifiable hearing damage, ensure:
 - (a) examination of employee by a doctor and/or specialist
 - (b) a suitably qualified person informs the employee accordingly
 - (c) the risk assessment is reviewed
 - (d) existing protective measures are reviewed
 - (e) consideration is given to assigning the employee to alternative work where there is no risk from further exposure, taking into account advice from a doctor or occupational health professional and

- (f) continued health surveillance and provide for a review of any other employee who has been similarly exposed
- Provide suitable and sufficient information, instruction and training where employees are exposed to noise likely to be at or above the LEAV
- Information, instruction and training provided shall include:
 - (a) nature of risks from exposure to noise
 - (b) organisational and technical measures to eliminate or control exposure
 - (c) ELVs, UEAVs and LEAVs
 - (d) significant findings of risk assessments, including any measurements taken
 - (e) availability and provision of PHP and their correct use
 - (f) why and how to detect and report signs of hearing damage
 - (g) entitlement to health surveillance
 - (h) safe working practices to minimise exposure to noise and
 - (i) the collective results of any health surveillance
- Information, instruction and training to be updated to take account of significant changes in the type of work and working methods
- Ensure any person, whether or not his employee, has suitable and sufficient information, instruction and training.

Duties of employees

- Make full and proper use of PHP and other control measures provided by employer
- Report any defect in PHP or other control measures
- Present themselves for health surveillance procedures as may be required where found to have identifiable hearing damage.



1(e) HSE guidance notes

Reducing noise at work

Sound solutions: techniques to reduce noise at work



2(b) Hazard checklists

Noise

**3(a) Tables and figures**

Decibels (addition of)

Noise control methods

Octave bands (standard range)

Control of Substances Hazardous to Health Regulations 2002

Responsible for enforcement

HSE and local authorities

Level of duty

So far as is reasonably practicable

Defence

All reasonable precautions and all due diligence

Duties of employers

- Not carry out work which is liable to expose employees to a substance hazardous to health (SHH) unless he has made a suitable and sufficient assessment of the risks and the steps that need to be taken, and implemented these steps
- The risk assessment shall be reviewed regularly and forthwith if no longer valid, if there is a significant change in the work and results of monitoring show it to be necessary
- Where changes to the risk assessment are required, these changes shall be made
- Where 5 or more employees, significant findings and steps to prevent or control exposure to be recorded
- Ensure exposure of employees is either prevented or adequately controlled
- Substitution to be undertaken to avoid use of a SHH
- Where not RP to prevent exposure, exposure must be controlled by, in order of priority, design and use of appropriate work processes, engineering controls and suitable work equipment and materials, control of exposure at source, including appropriate ventilation systems and organisational measures, and the provision of suitable PPE in addition to the above measures

- Where not RP to prevent exposure to a carcinogen or a biological agent, specific control measures must be applied
- Where there is exposure to a SHH, control shall only be treated as adequate if:
 - (a) the principles of good practice for the control of exposure to SHH set out in Schedule 2A to the COSHH (Amendment) Regulations 2004 are applied
 - (b) any workplace exposure limit for that substance is not exceeded
 - (c) for a substance
 - (i) which carries the risk phrase R45, R46 or R49, or for a substance listed in Schedule 1
 - (ii) which carries the risk phrase R42 or R42/43, or which is listed in Section C of HSE publication 'Asthmagen: Critical assessments of the evidence for agents implicated in occupational asthma' as updated from time to time, or any other substance which the risk assessment has shown to be a potential cause of occupational asthma exposure is reduced to as low a level as is RP.
- Take all reasonable steps to ensure control measures are used by employees
- Maintain plant and equipment, including engineering controls and PPE, in an efficient state, in efficient working order, in good repair and in a clean condition
- Ensure review of provision of systems of work and supervision and any other measures at suitable intervals
- Ensure thorough examination and testing of LEV systems at least once every 14 months, and of RPE at suitable intervals
- Keep a suitable record of above examinations and tests
- Ensure PPE is properly stored, checked at suitable intervals and repaired or replaced when defective
- Ensure exposure to SHH is monitored in accordance with a suitable procedure
- Ensure employees are provided with suitable health surveillance, particularly where exposed to a specified substance and related process

- Maintain an appropriate personal health record; keep available for 40 years
- Provide information, instruction and training for persons exposed to SHH
- Ensure provision of arrangements to deal with accidents, incidents and emergencies
- In the case of certain fumigants, that is, hydrogen cyanide, phosphine or methyl bromide, take specified precautions.

Duties of employees

- Make full and proper use of any control measure, other thing or facility provided
- Take all reasonable steps to ensure it is returned after use to the accommodation provided
- Report defects in the above to his employer.



1(d) Approved codes of practice

Control of substances hazardous to health

Control of substances hazardous to health in fumigation operations



1(e) HSE guidance notes

An introduction to local exhaust ventilation

Assessing and managing risks at work from skin exposure to chemical agents

A step-by-step guide to COSHH assessment

Biological monitoring in the workplace

Choice of skin care products for the workplace

Control of legionellosis, including legionnaire's disease

Control of substances hazardous to health in fumigation operations

COSHH essentials – easy steps to control chemicals

Cost and effectiveness of chemical protective gloves for the workplace

Dust: general principles of prevention

Health risk management: A guide to working with solvents

Health surveillance at work

Introduction to local exhaust ventilation

Maintenance, examination and testing of local exhaust ventilation

Monitoring strategies for toxic substances

Preventing asthma at work

The election, use and maintenance of respiratory protective equipment

Workplace exposure limits



2(b) Hazard checklists

Hazardous substances



3(a) Tables and figures

Categories of danger

Hazardous substances that can be revealed by medical analysis

Local exhaust ventilation systems



3(b) Forms

Health risk assessment

Control of Vibration at Work Regulations 2005

Responsible for enforcement

Health and Safety Executive or local authority

Level of duty

Absolute

Defence

None

Duties of employers

- Make a suitable and sufficient assessment of the risks to employees created by work where they may be liable to be exposed to vibration; the risk assessment shall identify the measures that need to be taken to comply with the regulations
- When undertaking risk assessment, assess daily exposure by means of:
 - (a) observation of specific working practices
 - (b) reference to relevant information on the probable magnitude of the vibration corresponding to the equipment used in the particular working conditions

- (c) if necessary, measurement of the magnitude of vibration to which his employees are likely to be exposed and the employer shall assess whether any employees are likely to be exposed above the actual exposure action value or an exposure limit value.

Exposure limit values and action values

- For hand-arm vibration:
 - (a) the daily exposure limit value normalised to an 8-hour reference period is 5 m/s^2
 - (b) the daily exposure action value normalised to an 8-hour reference period is 2.5 m/s^2
 - (c) daily exposure shall be ascertained on the basis set out in Schedule 1 Part 1
- For whole body vibration:
 - (a) the daily exposure limit value normalised to an 8-hour reference period is 1.15 m/s^2
 - (b) the daily exposure action value normalised to an 8-hour reference period is 0.5 m/s^2
 - (c) daily exposure shall be ascertained on the basis set out in Schedule 2 Part 1
- The risk assessment shall include consideration of:
 - (a) the magnitude, type and duration of exposure, including any exposure to intermittent vibration or repeated shocks
 - (b) the effects of exposure to vibration on employees whose health is at particular risk from such exposure
 - (c) any effects of vibration on the workplace and work equipment, including the proper handling of controls, the reading of indicators, the stability of structures and the security of joints
 - (d) any information provided by the manufacturers of work equipment
 - (e) the availability of replacement equipment designed to reduce exposure to vibration
 - (f) any extension of exposure at the workplace to whole-body vibration beyond normal working hours, including exposure in rest facilities supervised by the employer

- (g) specific working conditions such as low temperatures
- (h) appropriate information obtained from health surveillance including, where possible, published information
- The risk assessment shall be reviewed regularly and forthwith if there is reason to suspect it is no longer valid or there has been a significant change in the work to which it relates
- Employer shall record the significant findings of the risk assessment and the measures which he has taken or intends to take to meet requirements relating to elimination or control of exposure to vibration
- On the basis of the general principles of prevention set out in Schedule 1 of the MHSWR, the employer shall ensure risk is either eliminated at source or reduced (RP)
- Where it is not RP to eliminate risk at source and the risk assessment indicates that an exposure action value is likely to be exceeded, the employer shall reduce exposure as low as is RP by establishing and implementing a programme or organisational and technical measures which is appropriate to the activity and consistent with the risk assessment, and shall include consideration of:
 - (a) other methods of work which eliminate or reduce exposure
 - (b) choice of work equipment of appropriate ergonomic design which produces the least possible vibration
 - (c) provision of auxiliary equipment which reduces the risk of injuries caused by vibration
 - (d) appropriate maintenance programmes for work equipment, the workplace and workplace systems
 - (e) the design and layout of workplaces, work stations and rest facilities
 - (f) suitable and sufficient information and training for employees
 - (g) limitation of the duration and intensity of exposure
 - (h) appropriate work schedules with adequate rest periods and
 - (i) the provision of clothing to protect employees from cold and damp

- The employer shall:
 - (a) ensure that his employees are not exposed to vibration above an exposure limit value or
 - (b) if an exposure limit value is exceeded:
 - (i) take action to reduce exposure to below the limit value;
 - (ii) identify the reason for the limit being exceeded; and
 - (iii) modify the organisational and technical measures taken
- The above paragraph shall not apply where exposure of an employee is usually below the exposure action value but varies markedly from time to time and may occasionally exceed the exposure limit value, provided that:
 - (a) any exposure to vibration averaged over one week is less than the exposure limit value
 - (b) there is evidence to show that the risk from the actual pattern of exposure is less than the corresponding risk from constant exposure at the exposure limit value
 - (c) risk is reduced as low as RP, taking into account the special circumstances
 - (d) the employees concerned are subject to increased health surveillance where such surveillance is appropriate and exposure within the meaning of this paragraph shall be ascertained on the basis set out in Schedule 1 Part II for hand-arm vibration and Schedule 2 Part II for whole-body vibration
- The employer shall adapt any measure taken to take account of any employee who is particularly sensitive to vibration.
- If:
 - (a) the risk assessment indicates there is a risk to employees exposed to vibration or
 - (b) employees are exposed to vibration in excess of an exposure action valuethe employer shall ensure that such employees are under suitable health surveillance.

- Health surveillance shall be appropriate where the exposure of the employee is such that
 - (a) a link can be established between that exposure and an identifiable disease or adverse health effect
 - (b) it is probable that the disease or effect may occur under particular conditions of work and
 - (c) there are valid techniques for detecting the disease or effect
- The employer shall ensure that a health record in respect of each of his employees who undergoes health surveillance is made and maintained and that record or copy of same is kept available in a suitable form
The employer shall:
 - (a) on reasonable notice, allow an employee access to his health record
 - (b) provide the enforcing authority with copies of records and
 - (c) if he ceases to trade, notify the HSE forthwith and make available to the HSE any records kept by him
- Where any employee is found to have an identifiable disease or adverse health effect which is considered by a doctor or other occupational health professional to be the result of exposure to vibration, the employer shall:
 - (a) ensure that a suitably qualified person informs the employee and provides information about further health surveillance
 - (b) ensure that he is informed himself of any significant findings from the employee's health surveillance
 - (c) review the risk assessment
 - (d) review any elimination or control measure
 - (e) consider assigning the employee to alternative work where there is no risk from further exposure and
 - (f) provide for a review of the health of any other employee who has been similarly exposed, including a medical examination
- If:
 - (a) the risk assessment indicates there is a risk of exposure to vibration or

(b) employees are exposed to vibration in excess of an exposure action value

the employer shall provide those employees and their representatives with suitable and sufficient information, instruction and training

- The information, instruction and training shall include:
 - (a) the organisational and technical measures taken
 - (b) the exposure limit values and action values
 - (c) the significant findings of the risk assessment, including any measurements taken
 - (d) why and how to detect and report signs of injury
 - (e) entitlement to appropriate health surveillance
 - (f) safe working practices to minimise exposure to vibration and
 - (g) the collective results of any health surveillance undertaken
- The information, instruction and training shall be adapted to take account of significant changes in the type of work carried out or methods of work used by the employer.

Duties of employees

- When required by the employer and at the cost of his employer, present himself during working hours for such health surveillance as may be required.



1(e) HSE guidance notes

Hand-arm vibration

Vibration solutions

Dangerous Substances and Explosive Atmospheres Regulations 2002

Responsible for enforcement

Health and Safety Executive

Level of duty

Absolute

Duties of employers

- Make a suitable and sufficient assessment of the risks to employees arising from a dangerous substance:
 - eliminate or reduce the risk (RP) or
 - substitute with a substance or process which either eliminates or reduces risk or
 - apply specified measures to control the risk and to mitigate detrimental effects of fire or explosion or other harmful physical effects (RP)
- Classify places at the workplace where explosive atmospheres may occur and designate as hazardous zones
- Ensure safety of employees from accident, incident or emergency through:
 - (a) procedures including first aid facilities and relevant safety drills
 - (b) provision of information on emergency arrangements
 - (c) suitable warning and other communication systems
 - (d) before explosion conditions are reached, installation of visual or audible warnings
 - (e) provide and maintain escape facilities where risk assessment indicates such provision is necessary
- In the event of accident, incident or emergency:
 - (a) ensure immediate steps are taken to remedy situation
 - (b) regulate access to affected area, providing appropriate PPE and specialised safety equipment and plant
- Provide information, instruction and training for employees
- Identify hazardous contents of containers and pipes
- Co-ordinate implementation of all measures required with other employers who share the workplace.

Schedules

1. General safety measures – workplace and work processes, organisational measures
2. Classification of places where explosive atmospheres may occur
3. Criteria for the selection of equipment and protective systems
4. Warning sign for places where explosive atmospheres may occur
5. Legislation concerned with the marking of containers and pipes.

**1(d) Approved codes of practice**

Dangerous Substances and Explosives Atmospheres Regulations

Unloading petrol from road tankers

Design of plant, equipment and workplaces

Storage of dangerous substances

Control and mitigation measures

Safe maintenance, repair and cleaning procedures

Dangerous substances and explosive atmospheres

**1(e) HSE guidance notes**

The safe use and handling of flammable liquids

The storage of flammable liquids in containers

The storage of flammable liquids in tanks

**2(b) Hazard checklists**

Flammable substances

Hazardous substances

Electricity at Work Regulations 1989

Responsible for enforcement

HSE and local authorities

Level of duty

Reasonably practicable

Defence

All reasonable steps and all due diligence

Duties of employers, self-employed persons and managers of mines and quarries

- All systems at all times to be constructed and maintained so as to prevent danger
- Work activities to be carried out in such a manner as not to give rise to danger
- Equipment for protecting persons at work on or near electrical equipment to be suitably maintained in a condition suitable for that use and properly used
- No electrical equipment to be put into use where its strength and capability may be exceeded in such a way as to give rise to danger

- Equipment used in hazardous environments to be of such construction or protected as to prevent danger from such exposure
- All conductors which may give rise to danger to be suitably covered with insulating material and protected, or have precautions taken in respect of them as will prevent danger
- Precautions to be taken, either by earthing or other suitable means, to prevent danger arising when any conductor (other than a circuit conductor) which may reasonably foreseeably become charged as a result of either the use of the system, or a fault in a system
- Suitable precautions to be taken to ensure integrity of referenced conductors
- Every joint and connection in a system to be mechanically and electrically suitable for use
- Efficient means, suitably located, to be provided for protecting from excess of current
- Suitable means to be provided for cutting off the supply of electrical energy and for isolation of any electrical equipment
- Adequate precautions to be taken for work on equipment made dead
- Suitable precautions to be taken where persons are engaged on work on or near live conductors
- Adequate working space, access and lighting to be provided at work in circumstances which may give rise to danger
- Persons engaged in any work activity where technical knowledge or experience is necessary to prevent danger or risk of injury to be competent or under such degree of supervision as may be appropriate
- Part III of the Regulations applies to mines only.



1(e) HSE guidance notes

Electrical safety in arc welding

Electrical safety on construction sites

Electricity at work: safe working practices

Keeping electrical switchgear safe

*Maintaining portable and transportable electrical equipment
Memorandum of Guidance on the Electricity at Work Regu-
lations 1989*



2(b) Hazard checklists

Electrical equipment

Health and Safety (Consultation with Employees) Regulations 1996

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Duties of employers

- Must consult any employees who are not covered by the Safety Representatives and Safety Committees Regulations 1977
- Consultation may be direct or through appointed representatives of employee safety.



1(e) HSE guidance notes

*A guide to the Health and Safety (Consultation with Employees)
Regulations 1996*

Health and Safety (Display Screen Equipment) Regulations 1992

Responsible for enforcement

HSE and local authorities

Level of duty

Absolute

Duties of employers

- Perform a suitable and sufficient analysis of those workstations used for the purposes of his undertaking by defined 'users' and 'operators'

- Review any risk analysis if no longer valid or significant change in the matters to which it relates
- Reduce risks to the lowest extent (RP): See Hazard Checklists – Display screen equipment
- Ensure any workstation meets the requirements laid down in the Schedule to the Regulations
- Plan activities of users and operators to ensure screen breaks or change of activities
- Provide appropriate eye and eyesight tests for users
- Provide adequate health and safety training in use of workstation
- Provide adequate information on measures taken by employer with respect to analysis of workstation.



1(e) HSE guidance notes

A pain in your workplace: ergonomic problems and solutions

Display screen equipment work

Seating at work

The law on VDUs

Upper limb disorders in the workplace

Work-related upper limb disorders

Work with display screen equipment



2(b) Hazard checklists

Display screen equipment



3(a) Tables and figures

Health and Safety (Display Screen Equipment) Regulations 1992

(a) *Display screen equipment workstation – design and layout*

(b) *Seating and posture for typical office tasks*

Health and Safety (First Aid) Regulations 1981

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Duties of employers

- Make first aid arrangements for all employees, the scale of arrangements being based on the range of work activities and the hazards to which employees are exposed
- Ensure all employees are informed of first aid arrangements.

**1(d) Approved codes of practice***First aid at work***1(e) HSE Guidance***The training of first aid at work*

Health and Safety (Information for Employees) Regulations 1998

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Duties of employers

- Must ensure information relating to health, safety and welfare be furnished to employees by means of the poster or leaflet (entitled Health and Safety Law – What you should know)
- Must insert the name and address of the enforcing authority and address of the Employment Medical Advisory Service in the appropriate space on the poster or specified in a written notice accompanying the leaflet.

Health and Safety (Safety Signs and Signals) Regulations 1996

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Duties of employers

- Use a safety sign where a risk cannot be adequately avoided or controlled by other means Install, where necessary, road traffic signs
- Maintain safety signs
- Explain unfamiliar signs to their employees and tell them what they need to do when they see a safety sign
- Mark pipework containing dangerous substances
- Fire exit signs to incorporate the Running Man symbol.



1(e) HSE guidance

Safety signs and signals: Health and Safety (Safety Signs and Signals) Regulations 1996: Guidance on Regulations

Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1972

Responsible for enforcement

HSE

Level of duty

Absolute

Duties of occupiers of factories

- When not in use or being conveyed, all highly flammable liquids (HFLs) (as defined) should be stored in a safe manner
- Ensure all HFLs are stored in one of the following ways:
 - in suitable fixed storage tanks in a safe position
 - in suitably closed vessels kept in a safe position in the open air and, where necessary, protected against direct sunlight
 - in a suitable closed vessel kept in a store room that is either in a safe position or is of fire-resisting structure
 - in the case of a workroom, where the aggregate quantity of HFL stored does not exceed 50 litres, in

suitable closed vessels kept in a suitably placed cupboard or bin that is a fire-resisting structure

- Storage tanks to be provided with a bund wall enclosure that is capable of containing 110% of the capacity of the largest tank within the bund
- The ground beneath storage tanks to be impervious to liquid and be so sloped that any minor spillage will not remain beneath the vessels, but will run away to the sides of the enclosure
- Bulk storage tanks must not be located inside buildings or on the roof of a building
- Underground tanks should not be sited under the floors of process buildings
- A drum storage area should be surrounded by a sill capable of containing the maximum spillage from the largest drum in store
- Every store room, cupboard, bin, tank and vessel used for storing HFLs to be clearly and boldly marked 'Highly Flammable' or 'Flash point below 32°C' or 'Flash Point in the Range 22°C to 32°C'.
- All liquefied petroleum gas (LPG) (as defined) must be stored in one of the following ways:
 - in suitable underground reservoirs or in suitable fixed storage tanks located in a safe position, either underground or in the open air
 - in suitable movable storage tanks or vessels kept in a safe position in the open air
 - in pipelines or pumps forming part of an enclosed system
 - in suitable cylinders kept in a safe position in the open air or, where this is not reasonably practicable, in a store room constructed of non-combustible material, having adequate ventilation, being in a safe position, of fire-resisting structure, and being used solely for the storage of LPG and/or acetylene cylinders
- LPG cylinders must be kept in a store until they are required for use, and any expended cylinder must be returned to the store as soon as is reasonably practicable

- Every tank, cylinder, store room, etc used for the storage of LPG to be clearly and boldly marked 'Highly Flammable – LPG'
- Where HFLs are to be conveyed in a factory, a totally enclosed piped system should be used (RP)
- Where not RP, a system using closed non-spill containers may be acceptable
- Portable vessels, when emptied, should be removed to a safe place without delay
- Where, in any process or operation, any HFL is liable to leak or be spilt, all reasonably practicable steps should be taken to ensure that any such HFL is contained or immediately drained off to a suitable container, or to a safe place, or rendered harmless
- No means likely to ignite vapour from any HFL should be present where there may be dangerous concentrations of vapours from HFL
- Where any HFL is being utilised in a workplace, reasonably practicable steps should be taken so as to minimise the risk of escape of HFL vapours into the general workplace atmosphere: where this cannot be avoided, the safe dispersal of HFL vapours should be effected (RP)
- In cases where explosion pressure relief or adequate natural ventilation are required in a fire-resistant structure, a relaxation of the specification of a fire-resistant structure is allowable
- There must be adequate and safe means of escape in case of fire from every room in which any HFL is manufactured, used or manipulated
- A fire certificate is required where:
 - HFLs are manufactured
 - LPG is stored
 - liquefied flammable gas is stored
- Where, as a result of any process or operation involving any HFL, a deposit of any solid waste residue is liable to give rise to risk of fire on any surface:
 - steps must be taken to prevent the occurrence of all such deposits (RP)

- where any such deposits occur, effective steps must be taken to remove all such residues, as often as necessary, to prevent danger
- Appropriate fire-fighting equipment should be made readily available for use in all factories where HFLs are manufactured, used or manipulated.

Duties of all persons

- No person may smoke in any place in which any HFL is present and where the circumstances are such that smoking could give rise to fire.

Duties of employees

- Must comply with the Regulations and co-operate in their implementation
- On discovering any defect in plant, equipment or appliance, report the defect without delay to the occupier, manager or other responsible person.



1(e) HSE guidance notes

The safe use and handling of flammable liquids

The storage of flammable liquids in containers

The storage of flammable liquids in tanks



2(b) Hazard checklists

Fire safety

Flammable substances

Ionising Radiations Regulations 1999

Responsible for enforcement

HSE

Level of duty

Absolute

Defence

Various (See Regulation 36)

Duties of radiation employers

- Not carry out the following practices, except in accordance with a prior authorisation granted by the HSE:
 - the use of electrical equipment intended to produce X-rays for the purpose of:

- industrial radiography
 - the processing of products
 - research or
 - the exposure of persons for medical treatment
- the use of accelerators, except electron microscopes
- An authorisation may be subject to conditions
- Give 28 days' notice to the HSE of carrying out work with ionising radiation for the first time
- Prior to commencing a new activity, undertake a risk assessment to identify the measures he needs to take to restrict exposure of employees or other persons to ionising radiation
- Take all necessary steps to restrict exposure (RP)
- Provide personal protective equipment (PPE)
- Maintain and examine engineering controls etc and PPE
- Ensure employees are not exposed to an extent that any dose limit is exceeded in one calendar year
- Where a radiation accident is reasonably foreseeable, prepare a contingency plan
- Consult with radiation protection advisers
- Ensure the provision of:
 - suitable and sufficient information and instruction to radiation workers
 - information to other persons directly concerned with the work
 - information to those female employees with respect to radiation risks to the foetus and to a nursing infant, and of the need to inform the employer of their becoming pregnant or if they are breastfeeding
- Ensure co-operation with other employers where their employees may be exposed
- Designate controlled and supervised areas
- Make and set down in writing local rules in respect of controlled and supervised areas
- Ensure local rules are observed and brought to the attention of appropriate employees
- Appoint one or more radiation protection supervisors to ensure compliance with regulations

- Ensure any designated area is adequately described in local rules
- Ensure retention of monitoring or measurements for two years from the date they were recorded
- Where there is a significant risk of spread of radioactive contamination from a controlled area, make adequate arrangements to restrict such spread (RP)
- Monitor radiation in controlled and supervised areas
- Ensure monitoring equipment is properly maintained and adequately tested and examined
- Maintain records of monitoring and testing
- Designate classified persons
- In the case of classified persons, ensure an assessment of all doses received is made and recorded
- Estimate doses where a dosimeter or device is lost, damaged or destroyed or it is not practicable to assess the dose received by a classified person
- Following an accident or other occurrence where it is likely a classified worker has received an effective dose exceeding 6 mSv or an equivalent dose greater than three-tenths of any relevant dose limit, arrange for a dose assessment to be made by the approved dosimetry service forthwith
- Ensure specified persons are under appropriate medical surveillance
- Arrange for investigation and notification of suspected or actual overexposure
- Ensure a radioactive substance shall be in the form of a sealed source (RP)
- Ensure operation of procedures for accounting for radioactive substances
- Ensure suitable precautions for the moving, transporting or disposing of radioactive substances
- Ensure notification to the HSE of certain occurrences, e.g. spillages
- In the case of equipment used for medical exposure
 - ensure such equipment is of such design or construction and is so installed and maintained as to be

capable of restricting exposure of any person who is undergoing a medical exposure (RP)

- make arrangements for a suitable quality assurance programme to be provided
- take steps to prevent the failure of any such equipment
- where an incident may have occurred as a result of malfunction of, or defect in, radiation equipment, make an immediate investigation of the suspected incident and notify the HSE accordingly
- following the above investigation:
 - in respect of an immediate report, retain same for at least 2 years;
 - in respect of a detailed report, retain same for at least 50 years.

Duties of all persons

- Not to enter a controlled area unless he can demonstrate, by personal dose monitoring or other suitable measurements, that the doses are restricted
- Not to intentionally or recklessly misuse or without reasonable excuse interfere with any radioactive substance or any electrical equipment.

Duties of manufacturers etc. of articles for use in work with ionising radiation

- Ensure any article is so designed and constructed as to restrict the extent to which employees and other persons are or are likely to be exposed to radiation
- Where erecting or installing any article for use at work, undertake a critical examination of the way it was erected or installed, consult with radiation protection adviser and the
- radiation employer with information about the proper use, testing and maintenance of the article.

Duties of employees

- Not knowingly expose himself or any other person to ionising radiation to an extent greater than is reasonably necessary
- Exercise reasonable care while carrying out work

- Make full and proper use of any PPE, report defects in PPE to employer, and take steps to ensure PPE is returned to accommodation provided
- Comply with any reasonable requirement imposed on him for the purpose of making measurements and assessments in respect of dose received and dosimetry for accidents
- Present himself for medical examination and tests as may be required
- Notify his employer where he has reasonable cause to believe:
 - he or some other person has received an overexposure
 - where a release into the atmosphere or spillage has occurred
 - radiation incident involving medical exposure has occurred.

Duties of outside workers

- Not to misuse the radiation passbook issued to him or to falsify or attempt to falsify any of the information contained in it.

Schedules

1. Work not required to be notified under Regulation 6
2. Particulars to be provided in a notification under Regulation 6(2)
3. Additional particulars that the Executive may require
4. Dose limits
5. Matters in respect of which a radiation protection adviser must be consulted by a radiation employer
6. Particulars to be entered in a radiation passbook
7. Particulars to be contained in a health record
8. Quantities and concentrations of radionuclides.



1(d) Approved codes of practice

Work with ionising radiation



1(e) HSE guidance notes

Protection of persons against ionising radiation arising from any work activity



2(a) Health and safety practice

Local rules

2(b) Hazard checklists

Radiation hazards

3(a) Tables

Electromagnetic spectrum

Lifting Operations and Lifting Equipment Regulations 1998

Responsible for enforcement

HSE, local authority

Level of duty

Absolute

Duties of employers

- Ensure that:
 - lifting equipment is of adequate strength and stability for each load
 - every part of a load and anything attached to it and used in lifting it is of adequate strength
- Ensure safety of lifting equipment for lifting persons
- Ensure lifting equipment is positioned or installed in such a way to prevent specified accidents (RP)
- Ensure there are suitable devices to prevent a person falling down a shaft or hoistway
- Ensure machinery and accessories for lifting loads are clearly marked to indicate their safe working loads (SWLs)
- Ensure where the SWL of machinery for lifting depends upon its configuration:
 - the machinery is clearly marked to indicate its SWL for each configuration
 - information which clearly indicates its SWL for each configuration is kept with the machinery
- Ensure accessories for lifting are clearly marked in such a way that it is possible to identify the characteristics necessary for their safe use
- Ensure lifting equipment which is designed for lifting persons is appropriately and clearly marked to this effect

- Ensure lifting equipment which is not designed for lifting persons, but which might be so used in error, is appropriately and clearly marked to the effect that it is not designed for lifting persons
- Ensure every lifting operation involving lifting equipment is:
 - properly planned by a competent person
 - appropriately supervised
 - carried out in a safe manner
- Ensure, before lifting equipment is put into service for the first time, it is thoroughly examined for any defect unless either:
 - it has not been used before
 - in the case of lifting equipment for which an EC declaration of conformity could or (in the case of a declaration under the Lifts Regulations 1997) should have been drawn up, the employer has received such declaration made not more than 12 months before the lifting equipment is put into service
 - or, if obtained from the undertaking of another person, it is accompanied by physical evidence that the last examination required to be carried out has been carried out
- Ensure, where the safety of lifting equipment may depend upon its installation conditions, it is thoroughly examined:
 - after installation and before being put into service for the first time
 - after assembly and before being put into service at a new site or in a new location, to ensure it has been installed correctly and is safe to operate.
- Ensure that lifting equipment which is exposed to conditions causing deterioration which is liable to result in dangerous situations is:
 - thoroughly examined:
 - in the case of lifting equipment for lifting persons or an accessory for lifting, at least every six months
 - in the case of other lifting equipment, at least every 12 months, or

- in either case, in accordance with an examination scheme, and each time that exceptional circumstances which are liable to jeopardise the safety of the lifting equipment have occurred
- if appropriate for the purpose, is inspected by a competent person at suitable intervals between thorough examinations
- 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 has been carried out
- Where notified of a defect following a thorough examination of lifting equipment, ensure that the lifting equipment is not used:
 - before the defect is remedied, or
 - in specific cases, after a time specified and before the defect is remedied
- Where an employer receives an EC declaration of conformity, he shall keep it for so long as he operates the lifting equipment
- Ensure information contained in:
 - every report is kept available for inspection
 - every record is kept available until the next such record is made.

Duties of a person making a thorough examination of lifting equipment

- Shall:
 - notify the employer forthwith of any defect in the lifting equipment which is, or could become, a danger to persons
 - make a report of the thorough examination in writing authenticated by him or on his behalf by signature or equally secure means and containing the information specified in Schedule 1 to:
 - the employer

- any person for whom the lifting equipment has been hired or leased (P)
- where there is a defect in the lifting equipment involving an existing or imminent risk of serious personal injury, send a copy of the report to the relevant enforcing authority.

Duties of a person making an inspection of lifting equipment

- Shall:
 - notify the employer forthwith of any defect in the lifting equipment which is, or could become, a danger to persons
 - make a record of his inspection in writing (P).



1(d) Approved codes of practice

Safe use of lifting equipment



1(e) HSE guidance notes

Safe use of lifting equipment

Lifts Regulations 1997

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Defence

All reasonable precautions and all due diligence

Act or default of another person

Reliance on information given by another

Duties of responsible persons

- Not to place on the market and put into service any lift unless the following requirements have been complied with:
 - it satisfies the essential health and safety requirements (EHSRs) (as defined) and for the purpose of satisfying those requirements
 - where a transposed harmonised standard covers one or more of the relevant EHSRs, any lift constructed in accordance with that transposed harmonised

- standard shall be presumed to comply with that or, as the case may be, those EHSRs
- by calculation or on the basis of design plans, it is permitted to demonstrate the similarity of a range of equipment to satisfy the essential safety requirements
 - the appropriate conformity assessment procedure in respect of the lift has been carried out
 - the CE marking has been affixed to it by the installer of the lift
 - a declaration of conformity has been drawn up taking account of the specifications given in the Schedule used for the conformity assessment procedure
 - it is in fact safe.
- Not to place on the market and put into service any safety component unless the following requirements have been complied with:
 - it satisfies the relevant EHSRs and for the purpose of satisfying those requirements where a transposed harmonised standard covers one or more of the relevant EHSRs, any safety component constructed in accordance with that transposed harmonised standard shall be presumed to be suitable to enable a lift on which it is correctly installed to comply with that or, as the case may be, those EHSRs
 - the appropriate conformity assessment procedure has been carried out
 - the CE marking has been affixed to it, or on a label inseparably attached to it, by the manufacturer or his authorised representative established in the Community
 - a declaration of conformity has been drawn up by the manufacturer or his authorised representative established in the Community containing the information listed in Part A of Schedule 2, taking account of specifications given in the Schedule for the conformity assessment procedure
 - it is in fact safe.

- Retain any technical documentation or information under the conformity assessment procedure for any period specified in that procedure.

Duty of suppliers of lifts or safety components

- Ensure that the lift or safety component is safe.

Duty of persons specified in a conformity assessment procedure

- Retain any technical documentation or other information specified in that respect for any period specified in that procedure.

Duties of a person responsible for work on the building or construction and installer of a lift

- Shall:
 - keep each other informed of the facts necessary for, and
 - take the appropriate steps to ensure the proper operation and safe use of the lift; in particular it shall be ensured that the shafts intended for lifts do not contain any piping or wiring or fittings other than that necessary for the operation and safety of that lift.

Duty of designers of lifts

- The person responsible for the design must supply to the person responsible for construction, installation and testing all necessary documents and information for the latter person to be able to operate in absolute security.

Duty of installers of lifts

- In the case of a lift, supply to the Commission of the European Communities, the Member States and any other notified bodies, on request, a copy of the declaration of conformity, together with a copy of the reports of the tests involved in the final inspection carried out as part of the conformity assessment procedure.

Duty of person who draws up declaration of conformity

- Retain a copy of the declaration of conformity for a period of 10 years:
 - in the case of a lift, from the date on which the lift was placed on the market, and

- in the case of a safety component, from the date on which safety components of that type were last manufactured by that person.

Duty of notified bodies

- Carry out the procedures and specific tasks for which it has been appointed including (where so provided as part of the procedures) surveillance to ensure that the installer of the lift or manufacturer of the safety component or such other responsible person, as the case may be, duly fulfils the obligations arising out of the relevant conformity assessment procedure.

Management of Health and Safety at Work Regulations 1999

Responsible for enforcement

HSE and local authorities

Level of duty

Absolute

Duties of employers

- Make a suitable and sufficient assessment of the risks to the health and safety of his employees and to other persons not in his employment, who may be affected by the activities of his undertaking, for the purposes of identifying the measures he needs to take to comply with the requirements and prohibitions imposed on him by or under the relevant statutory provisions
- Implement preventive and protective measures according to Schedule 1
- Make and give effect to arrangements for the effective planning, organisation, control, monitoring and review of preventive and protective measures
- Where 5 or more employees, record arrangements
- Provide health surveillance where appropriate

- Appoint one or more competent persons to oversee protective measures arising from risk assessment
- Establish procedures for serious and imminent danger and danger areas
- Ensure contacts with external services are arranged particularly with respect to first aid, emergency medical care and rescue work
- Provide information to employees which is comprehensible and relevant information on identified risks, preventive and protective measures, procedures for serious and imminent danger, identities of competent persons and risks associated with shared workplaces
- Provide parents with specific information prior to employing a child
- Ensure co-operation, co-ordination and information on risks to other parties in shared workplaces
- Provide comprehensible information to employers of an outside undertaking on the risks arising from his undertaking and the safety measures necessary
- When entrusting tasks to employees, take into account their capabilities as regards health and safety
- Ensure adequate health and safety training under specified circumstances
- Inform temporary workers of special qualifications or skills required to work safely and of any health surveillance required
- Undertake risk assessment in respect of new or expectant mothers
- Suspend new or expectant mothers from work in specific cases
- Ensure protection for young workers and not employ young workers in specific cases.

Duties of employees

- Use any equipment in accordance with any training and instructions
- Inform employer of work situations which represent serious or immediate danger

- Inform employer of shortcomings in protection arrangements.

Schedule 1: general principles of prevention

In implementing preventive and protective measures, the following hierarchy of measures must be considered:

- (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.



1(d) Approved codes of practice

Management of health and safety at work



1(e) HSE guidance notes

Five steps to risk assessment

Managing crowds safely

Managing health and safety on work experience

New and expectant mothers at work

Reducing error and influencing behaviour

Successful health and safety management

Young people at work



3(a) Tables and figures

Key elements of successful health and safety management

**3(c) Forms***Hazard report***Manual Handling Operations Regulations 1992***Responsible for enforcement*

HSE and local authorities

Level of duty

So far as is reasonably practicable

Duties of employers

- Avoid the need for employees to undertake manual handling operations which involve a risk of injury
- Where it is not reasonably practicable to avoid manual handling, make a suitable and sufficient assessment having regard to the factors and questions outlined in Schedule 1
- Take appropriate steps to reduce the risk to the lowest level
- Take appropriate steps to provide employees with general indications and where it is reasonably practicable to do so, precise information on the weight of each load and the heaviest side of any load whose centre of gravity is no longer positioned centrally.

Duties of employees

- Make full and proper use of any system of work provided.

Schedule 1 – Factors for consideration when making an assessment of manual handling operations

- the tasks
- the loads
- the working environment
- individual capability
- other factors e.g. effects of protective clothing.

**1(e) HSE guidance notes***Manual handling**Manual handling: solutions you can handle***2(b) Hazard checklists***Manual handling operations*



3(a) Tables and figures

Manual handling – lifting and lowering

Manual Handling Operations Regulations 1992 – Flow chart



3(b) Forms

Manual Handling Operations Regulations 1992 – Risk assessment

Personal Protective Equipment at Work Regulations 1992

Responsible for enforcement

HSE and local authorities

Level of duty

Absolute

Duties of employers

- Ensure that suitable PPE is provided except where and to the extent that the risk has been controlled by other means
- To be suitable, PPE must:
 - (a) be appropriate for the risks involved and the conditions at the place where exposure occurs
 - (b) take account of the ergonomic requirements and state of health of the wearer or user
 - (c) be capable of fitting the wearer correctly
 - (d) be effective to adequately prevent or control the risks without increasing the overall risk and
 - (e) comply with any enactment on design or manufacture listed in Schedule 1
- Where employees need to wear or use more than one item of PPE simultaneously (due to more than one risk), such equipment must be compatible and continue to be effective against the risks in question
- Before choosing any PPE that is required to be provided, ensure an assessment is made to determine whether the PPE to be provided is suitable
- The assessment shall include:
 - (a) an assessment of any risks which have not been avoided by other means

- (b) the definition of the characteristics which the PPE must have in order to be effective, taking into account any risks which the PPE itself may create
- (c) comparison of the PPE available with the necessary characteristics above
- Ensure that PPE provided is maintained (including replaced or cleaned as appropriate) in an efficient state, in efficient working order and in good repair
- Ensure that appropriate accommodation is provided for PPE when it is not being used
- Provide information, instruction and training as is adequate to enable the employees to know:
 - (a) the risk(s) which the PPE will avoid or limit
 - (b) the purpose for which and the manner in which the PPE is to be used and
 - (c) action to ensure PPE remains in an efficient state, etc.
- Take all reasonable steps to ensure that any PPE is properly used by employees.

Duties of employees

- Use any PPE provided both in accordance with any training and the instructions respecting that use
- Take all reasonable steps to ensure PPE is returned to the accommodation provided after its use
- Forthwith report to his employer any loss of or obvious defect in that PPE.



1(e) HSE guidance notes

Personal protective equipment at work: guidance on regulations
Respiratory protective equipment: a practical guide for users
The selection, use and maintenance of respiratory protective equipment



2(b) Hazard checklists

Personal protective equipment



3(a) Tables and figures

Personal Protective Equipment at Work Regulations 1992 – Specimen risk survey table for the use of personal protective equipment

Pressure Systems Safety Regulations 2000

Responsible for

HSE

Level of duty

Absolute

Defence

Act or default of another person

All reasonable precautions and all due diligence

Duties of designers, manufacturers and suppliers

- Ensure proper design and manufacture, constructed from suitable material so designed as to prevent danger, and constructed that all necessary examinations can be carried out
- Design and construct as to ensure that access can be gained without danger (P)
- Provide with necessary protective devices
- Provide sufficient written information concerning design, construction, examination, operation and maintenance as may reasonably foreseeably be needed to comply with regulations
- Manufacturers of pressure vessels to ensure information in Schedule 3 is marked on the vessel.

Duties of importers

- Must not import a pressure vessel unless it is so marked.

Duties of persons

- Must not remove from a pressure vessel any mark or plate containing information specified in Schedule 3
- Must not falsify any mark on a pressure system relating to its design, construction, test or operation
- Must not draw up a written scheme of examination unless it is suitable and:
 - specifies the nature and frequency of examination
 - specifies any measures necessary to prepare the system for safe examination and
 - where appropriate, provides for an examination to be carried out before the system is used for the first time.

Duties of employers of persons who undertake work

- Ensure safe installation as not to give rise to danger or otherwise impair the operation of any protective device or inspection facility
- Ensure that nothing about the way in which a pressure system is modified or repaired gives rise to danger.

Duties of users of installed systems and owners of mobile systems

- Must not operate the system or allow it to be operated unless the safe operating limits have been established
- Must have a written scheme for the periodic examination, by a competent person, of the following parts:
 - all protective devices
 - every pressure vessel and every pipeline in which a defect may give rise to danger
 - those parts of the pipework in which a defect may give rise to danger
- Ensure parts of system included in the scheme of examination are examined by a competent person within the intervals specified
- Before each examination, take appropriate safety measures
- Ensure system is not operated unless repairs or modifications specified in written report have been made
- Provide adequate and suitable instructions for operators and ensure operation according to the instructions
- Ensure system is properly maintained in good repair
- Keep the last report of examination by a competent person and previous reports containing appropriate information
- Give to a new user/owner copies of records

Duties of competent persons

- Undertake examinations properly and in accordance with the scheme of examination
- Following examination, make a written report, and send it to the user or owner within 28 days
- Where of the opinion that a pressure system will give rise to imminent danger unless repairs or modifications have been carried out, or suitable changes to operating conditions made, make a written report to the user/owner, sending same particulars to the enforcing authority.



1(d) Approved codes of practice

Pressure systems



1(e) HSE guidance notes

Safety at autoclaves

Safety in pressure testing

The assessment of pressure vessels operating at low temperature

Provision and Use of Work Equipment Regulations 1998

Responsible for

HSE and local authorities

Level of duty

Absolute (except where stated)

Duties of employers

- Ensure that work equipment is so constructed or adapted as to be suitable for the purpose for which it is used or provided
- In selecting work equipment, have regard to the working conditions, the risks which exist in the premises or undertaking and any additional risk posed by the use of that work equipment
- Work equipment to be used only for operations for which, and under conditions for which, it is suitable (suitable means suitable in any respect which it is reasonably foreseeable will affect the health or safety of any person)
- Ensure work equipment is maintained in an efficient state, in efficient working order and in good repair
- Where any machinery has a maintenance log, it must be kept up to date
- Ensure that, where the safety of work equipment depends upon 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
- Where work equipment is exposed to conditions causing deterioration, which is liable to result in dangerous situations, it must be inspected at suitable intervals and at each time that exceptional circumstances liable to jeopardise its safety have occurred
- Inspection in the above cases means such visual or more rigorous inspection by a competent person and, where appropriate to carry out testing for the purpose, includes testing the nature and extent of which are appropriate for the purpose
- Ensure that the result of an inspection is recorded and kept until the next inspection is recorded
- Ensure that no work equipment leaves their 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 inspection has been carried out
- Where the use of work equipment is likely to involve a specific risk, ensure that the use of that equipment is restricted to persons given the task of using it and repairs, modifications, maintenance or servicing are restricted to specifically designated persons (designated persons must receive adequate training related to the operations for which they have been designated)
- Ensure that all persons who use work equipment, or who supervise or manage the use of same, have adequate health and safety information and, where appropriate, written instructions
- Information and instructions shall include information and, where appropriate, written instructions on the conditions in which and the methods by which the equipment may be used, foreseeable abnormal situations and the action to be taken, and any conclusions to be drawn from experience of using the equipment
- Information and instructions must be readily comprehensible to those concerned

- Ensure that all persons using work equipment, and those who supervise or manage the use of work equipment, have received adequate training, including training in the methods which may be adopted when using the equipment, any risks which such use may entail and the precautions to be taken
- Ensure that an item of work equipment has been designed and constructed in compliance with any essential requirements, that is, requirements relating to its design or construction in any of the instruments listed in Schedule 1 (being instruments which give effect to Community Directives concerning the safety of products)
- Ensure that measures are taken in accordance with the paragraph below which are effective:
 - to prevent access to any dangerous part of machinery or to any rotating stock-bar or
 - to stop the movement of any dangerous part of machinery or rotating stock-bar before any part of a person enters a danger zone (Danger zone means any zone in and around machinery in which a person is exposed to a risk to health and safety from contact with a dangerous part of machinery or a rotating stock-bar; stock-bar means any part of a stock-bar which projects beyond the head-stock of a lathe)
- Measures required by the above paragraph consist of
 - the provision of fixed guards enclosing every dangerous part, where and to the extent that it is practicable to do so, but where or to the extent that it is not, then
 - the provision of other guards or protection devices, where and to the extent that it is practicable to do so, but where or to the extent that it is not, then
 - the provision of jigs, holders, push-sticks and similar protection appliances used in conjunction with the machinery, where and to the extent that it is practicable to do so, but where or to the extent that it is not
 - the provision of information, instruction, training and supervision

- All guards and protection devices shall:
 - be suitable for the purpose for which they are provided
 - be of good construction, sound material and adequate strength
 - be maintained in an efficient state, in efficient working order and in good repair
 - not give rise to any increased risk to health or safety
 - not be easily bypassed or disabled
 - be situated at sufficient distance from the danger zone
 - not unduly restrict the view of the operating cycle of the machinery, where such a view is necessary and
 - be so constructed or adapted that they allow operations necessary to fit or replace parts and for maintenance work, restricting access so that it is allowed only to the areas where the work is to be carried out and, if possible, without having to dismantle the guard or protection device
- Take measures to ensure that exposure of employees to work equipment hazards is prevented or, where this is not reasonably practicable, adequately controlled. The measures required shall be other than the provision of PPE or of information, instruction and training. Specified hazards are:
 - any article or substance falling or being ejected from work equipment
 - rupture or disintegration of parts of work equipment
 - work equipment catching fire or overheating
 - the unintended or premature discharge of any article or of any gas, dust, etc. produced, used or stored in it
 - the unintended or premature explosion of the work equipment or any article or substance produced, used or stored in it
- Ensure that work equipment, parts of same and any article or substance produced, used or stored in it which is at a high or very low temperature is protected so as to prevent injury by burn, scald or sear

- Ensure that, where appropriate, work equipment is provided with one or more controls for starting (including re-starting after a stoppage) or controlling any change in speed, pressure or other operating conditions where such conditions after the change results in risks. Where such a control is required, it must not be possible to perform these operations except by a deliberate action on same
- Where appropriate, equipment must be provided with one or more readily accessible controls the operation of which will bring the work equipment to a safe condition in a safe manner
- Where appropriate, equipment must be provided with one or more readily accessible emergency stop controls unless it is not necessary by virtue of the nature of the hazards and the time taken for the work equipment to come to a complete stop as the result of the action of any stop control
- All controls must be clearly visible and identifiable, including appropriate marking where necessary. No control should be in a position where the operator could be exposed to a risk
- Ensure that control systems are safe and are chosen making due allowance for failures, faults and constraints to be expected in the planned circumstances of use (RP)
- A control system shall not be safe unless:
 - its operation does not create any increased risk
 - it ensures, so far as is reasonably practicable, that any fault in or damage to the system or loss of supply of energy cannot result in additional or increased risk and
 - it does not impede the operation of any stop control or emergency stop control
- Ensure that, where appropriate, work equipment is provided with suitable means to isolate it from all sources of energy. The means must be clearly identifiable and readily accessible
- Re-connection to an energy source must not create risks to health or safety
- Ensure stabilisation by clamping or otherwise where necessary

- Provide suitable and sufficient lighting, which takes account of the operations to be carried out
- Take appropriate measures to ensure that work equipment is so constructed or adapted that maintenance operations which involve a risk can be carried out while the equipment is shut down, or in other cases, carried out without exposing persons involved to a risk, or appropriate protective measures are taken (RP)
- Mark work equipment in a clearly visible manner
- Incorporate any warnings or warning devices which are appropriate; warnings must be unambiguous, easily perceived and easily understood
- No employee must be carried on mobile work equipment unless it is suitable for carrying persons and it incorporates features for reducing so far as is reasonably practicable risks to their safety, including risks from wheels or tracks
- Where there is a risk from mobile equipment rolling over, it must be minimised by stabilising same, a structure which ensures that the equipment does no more than fall on its side, a structure giving sufficient clearance to anyone being carried if it overturns further than that, or a device giving comparable protection
- Where there is a risk of being crushed by its rolling over, the rider shall be provided with a suitable restraining system
- In the case of a fork lift truck, this must be adapted or equipped to reduce to as low as is reasonably practicable the risk to safety from its overturning
- Where self-propelled work equipment may, while in motion, involve risk to the safety of persons:
 - it must incorporate facilities for preventing it being started by an unauthorised person
 - it must incorporate facilities for minimising the consequences of a collision where there is more than one item of rail-mounted equipment in motion at the same time
 - it must incorporate a device for braking and stopping

- emergency braking and stopping facilities must be available in the event of failure of the main facility
- where the driver's field of vision is inadequate to secure safety, adequate devices for improving his vision must be provided
- if provided for use at night or in dark places, it must be equipped with lights and safe for use and
- if it, or anything carried or towed by it, constitutes a fire hazard, it must carry appropriate fire-fighting equipment, unless such equipment is kept sufficiently close to it
- Where such equipment involves a risk while in motion, employers must ensure that it stops automatically once it leaves its control range and, where the risk is of crushing or impact, it incorporates features to guard against such risk, unless devices fitted are able to do so
- Where the seizure of the drive shaft between mobile work equipment and its accessories or anything towed is likely to involve a risk, employers must ensure the equipment has a means of preventing such seizure or, where seizure cannot be avoided, take every possible measure to avoid an adverse effect on the safety of an employee
- Where mobile work equipment has a shaft for the transmission of energy and the shaft could become soiled or damaged by contact with the ground while uncoupled, the equipment has a system for safeguarding the shaft.



1(d) Approved codes of practice

Safe use of work equipment



1(e) HSE guidance notes

Application of electro-sensitive protective equipment using light curtains and light beam devices to machinery

Drilling machines

Health and safety in engineering workshops

Power presses: maintenance and thorough examination

Safety in the use of abrasive wheels

Safety in working with lift trucks

Safeguarding of agricultural machinery

Safe use of power presses

Safe use of woodworking machinery

Safe use of work equipment: Guidance on the Regulations

Safe work with overhead travelling cranes



2(b) Hazard checklists

Mobile mechanical handling equipment (lift trucks, etc)

Work equipment

Regulatory Reform (Fire Safety) Order 2005

Responsible for enforcement

Area fire authority

HSE (nuclear installations, ships of HM Navy, construction sites)

Fire service maintained by Secretary of State for Defence

Relevant local authority (sports grounds, regulated stands)

Fire inspectors (Crown premises, UKAEA premises)

Level of duty

Absolute (in some cases, RP)

Defence

All reasonable precautions and all due diligence

Onus of proving limits of what is reasonably practicable

In any proceedings for an offence consisting of a duty or requirement so far as is reasonably practicable, it is for the accused to prove that it was not reasonably practicable to do more than was in fact done to satisfy the duty of requirement.

Duties of responsible persons

- Take such general fire precautions as will ensure safety of any of his employees (RP). In relation to relevant persons who are not his employees, take such general fire precautions as may reasonably be required in the circumstances of the case to ensure that the premises are safe
- Make a suitable and sufficient assessment of the risks to which relevant persons are exposed for the purpose of identifying the general fire precautions he needs to take to comply with the requirements and prohibitions imposed upon him by or under this Order

- Consider implications of presence of dangerous substances in the risk assessment process
- Review risk assessment if no longer valid or there has been a significant change in the matters to which it relates
- Not employ a young person unless he has considered matters to be taken into particular account set out in Part 2 of Schedule 1
- Record the significant findings of the risk assessment and details of any group being especially at risk
- Not to commence a new work activity involving a dangerous substance unless a risk assessment has been made and measures required by the Order have been implemented
- When implementing preventive and protective measures to do so on the basis of the principles specified in Part 3 of Schedule 1
- Make and give effect to arrangements for the effective planning, organisation, control, monitoring and review of preventive and protective measures
- Record the arrangements in specified cases
- Where a dangerous substance is present, eliminate or reduce risks (RP)
- Replace a dangerous substance or use of a dangerous substance with a substance or process which eliminates or reduces risks (RP)
- Where not RP to reduce above risks, apply measures to control the risk and mitigate the detrimental effects of fire
- Arrange safe handling, storage and transport of dangerous substances and wastes
- Ensure any conditions necessary for eliminating or reducing risk are maintained
- Ensure premises are equipped with appropriate fire-fighting equipment and with fire detectors and alarms and that non-automatic fire-fighting equipment is easily accessible, simple to use and indicated by signs
- Take measures for fire-fighting in the premises, nominate competent persons to implement these measures and arrange any necessary contact with external services

- Ensure routes to emergency exits and the exits themselves are kept clear at all times
- Comply with specific requirements dealing with emergency routes, exits and doors and the illumination of emergency routes and exits in respect of premises
- Establish and, where necessary, give effect to appropriate procedures for serious and imminent danger and for danger zones, including safety drills, nomination of competent persons to implement the procedures and restriction of access to areas on the grounds of safety
- Ensure additional emergency measures are taken in respect of dangerous substances, including provision of information on emergency arrangements, suitable warnings and other communication systems, before any explosion conditions are reached, visual and audible warnings, and escape facilities
- Relevant information must be made available to emergency services and displayed at the premises
- In the event of an accident, incident or emergency related to the presence of a dangerous substance, take immediate steps to mitigate the effects of fire, restore the situation to normal, and inform relevant persons
- Ensure only those persons essential for the carrying out of repairs and other necessary work are permitted in an affected area
- Ensure that premises and any facilities, equipment and devices are subject to a suitable system of maintenance and are maintained in an efficient state, in efficient working order and in good repair
- Appoint one or more competent persons to assist him in undertaking the preventive and protective measures, ensuring adequate co-operation between competent persons
- Ensure that competent persons have sufficient time to fulfil their functions and the means at their disposal are adequate having regard to the size of the premises, the risks and the distribution of those risks

- Ensure competent persons not in his employment are informed of factors affecting the safety of any person and are provided with the same information as employees
- Provide employees with comprehensible and relevant information on the risks identified in the risk assessment, preventive and protective measures, the identities of competent persons for the purposes of evacuation of premises and the notified risks arising in shared workplaces
- Before employing a child, provide the parent with comprehensible and relevant information on the risks to that child, the preventive and protective measures and the notified risks arising in shared workplaces
- Where a dangerous substance is on the premises, provide employees with the details of any such substance and the significant findings of the risk assessment
- Provide information to employers and the self-employed from outside undertakings with respect to the risks to those employees and the preventive and protective measures taken
- Provide non-employees working in his undertaking with appropriate instructions and comprehensible and relevant information regarding any risks to those persons
- Ensure the employer of any employees from an outside undertaking working in or on the premises is provided with sufficient information with respect to evacuation procedures and the competent persons nominated to undertake evacuation procedures
- Ensure employees are provided with adequate safety training at the time of first employment, and on being exposed to new or increased risks arising from transfer or change of responsibilities, introduction of, or change in, work equipment, the introduction of new technology and the introduction of a new system of work or a change respecting an existing system of work
- In the case of shared workplaces, to co-operate with other responsible person(s), take all reasonable steps to co-ordinate the measures he takes to comply with this Order with the measures taken by other responsible persons, and take all reasonable steps to inform other responsible persons.

Duties of employees

- Every employee must:
 - take reasonable care for the safety of himself and others who may be affected by his acts or omissions while at work
 - co-operate with his employer to enable him to comply with any duty or requirement imposed by this Order
 - inform his employer or any other employee with the specific responsibility for the safety of his fellow employees of any work situation which represents a serious and immediate danger to safety, and any other matter which represents a shortcoming in the employer's protection arrangements for safety.

Powers of the Secretary of State

- The Secretary of State may by regulations make provision as to the precautions which are to be taken or observed in relation to the risk to relevant persons as regards premises to which this Order applies.

Enforcement of Order

- Every enforcing authority must enforce the provisions of this Order and any regulations made under it
- The enforcing authority must have regard to such guidance as the Secretary of State may give.

Enforcing authorities – Powers of inspectors

- An inspector may do anything necessary for the purpose of carrying out this Order and any regulations made under it into effect and, in particular, so far as may be necessary for that purpose, shall have the power to do at any reasonable time the following:
 - to enter premises and to inspect the whole or part of that premises
 - to make such inquiry as may be necessary
 - to ascertain as regards the premises, whether the provisions of this Order or regulations made under it apply or have been complied with
 - to identify the person responsible in relation to the premises
 - to require the production of any records

- to require any person having responsibilities in relation to any premises to give him such reasonable facilities and assistance
- to take samples of articles and substances found in any premises for the purpose of ascertaining their fire resistance or flammability
- to cause any article or substance found in any premises to be dismantled or subjected to any process or test
- An inspector must, if so required, produce evidence of his authority
- Where intending to cause any article or substance to be dismantled or subjected to any process or test, at the request of a person present at the time, to cause anything which is to be done in the presence of that person
- An inspector must consult the above person(s) for the purposes of ascertaining what dangers, if any, there may be in doing anything which he proposes to do under that power
- The above powers conferred on a fire inspector, or any other person authorised by the Secretary of State, are also exercisable by an officer of the fire brigade maintained by the fire authority when authorised in writing by such an inspector.

Alterations Notices

- Where premises constitute a serious risk to relevant persons or may constitute such a risk if any change is made to them or the use to which they are put, the enforcing authority (EA) may serve on the responsible person an Alterations Notice
- Where an Alterations Notice has been served, before making any of the following changes which may result in a significant increase in risk, namely:
 - a change to 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
 - a change to the use of the premises

the responsible person must notify the EA of the proposed changes.

Enforcement Notices

- If the EA is of the opinion that the responsible person has failed to comply with any provision of this Order or of any regulations made under it, the enforcing authority may serve on that person an Enforcement Notice
- An Enforcement Notice may include directions as to the measures which the EA consider are necessary to remedy the above failure, including a choice between different ways of remedying the contravention
- A court may cancel or modify an Enforcement Notice
- An EA may withdraw a notice at any time before the end of the period specified, or extend or further extend the period of the notice.

Prohibition Notices

- If the EA is of the opinion that use of premises involves or will involve a risk to relevant persons so serious that use of the premises ought to be prohibited or restricted, the authority may serve on the responsible person a Prohibition Notice, such a Notice to include anything affecting the escape of relevant persons from the premises
- A Prohibition Notice must:
 - state that EA is of the opinion referred to above
 - specify the matters which give or will give rise to that risk
 - direct that the use to which the notice relates is prohibited or restricted to such extent as may be specified until the specified matters have been remedied
- A Prohibition Notice may take immediate effect or be deferred for a period specified in the notice
- Before serving a Prohibition Notice in relation to a house in multiple occupation the EA shall, where practicable, notify the local housing authority.

Appeals

- A person on whom an Alterations Notice, an Enforcement Notice, a Prohibition Notice or a notice given by the fire

authority respecting fire-fighter's switches for luminous signs is served may, within 21 days, appeal to a Magistrates' Court

- On appeal, the court may either cancel or affirm the notice in its original form or with modifications
- Where an appeal is brought against an Alterations Notice or an Enforcement Notice, such appeal has the effect of suspending the operation of the notice
- Where an appeal is brought against a Prohibition Notice, such appeal does not have the effect of suspending the notice, unless the court so directs
- A person, and the EA, if aggrieved by an order made by a Magistrates Court, may appeal to the Crown Court.

Miscellaneous

- Certain luminous tube signs designed to work at a voltage normally exceeding the prescribed voltage, or other equipment so designed, must be provided with a cut-off switch so placed and coloured or marked as to be readily recognisable and accessible to fire-fighters
- The responsible person must ensure that the premises and any facilities, equipment and devices for the use by or protection of fire-fighters are subject to a suitable system of maintenance and are maintained in an efficient state, in efficient working order and in good repair
- Nothing in this Order is to be construed as conferring a right of action in any civil proceedings (other than proceedings for the recovery of a fine)
- Breach of a duty imposed on an employer by or under this Order, so far as it causes damage to an employee, confers a right of action on that employee in any civil proceedings
- No employer must levy or permit to be levied on any employee of his any charge in respect of anything done or provided in pursuance of any requirement of this Order or regulations made under this Order.
- In the case of licensed premises:
 - the licensing authority must consult the EA before issuing the licence

- the EA must notify the licensing authority of any action that the EA takes
- Where it is proposed to erect a building, or make any extension of or structural alteration to a building to which the Order applies, the local authority must consult the EA before passing those plans.

Service of notices

- Similar provisions as those for the HSWA apply with respect to the service of notices.

Schedule 1

Part 1 – Matters to be considered in risk assessment in respect of dangerous substances

- The matters are:
 - the hazardous properties of the substance
 - information on safety provided by the supplier, including information contained in any relevant safety data sheet
 - the circumstances of the work including:
 - (i) the special, technical and organisational measures and the substances used and their possible interactions
 - (ii) the amount of the substance involved
 - (iii) where the work will involve more than one dangerous substance, the risk presented by such substances in combination
 - (iv) the arrangements for the safe handling, storage and transport of dangerous substances and of waste containing dangerous substances
 - (v) activities, such as maintenance, where there is the potential for a high level of risk
 - (vi) the effect of measures which have been or will be taken pursuant to this Order
 - (vii) the likelihood that an explosive atmosphere will occur and its persistence
 - (viii) the likelihood that ignition sources, including electrostatic discharges, will be present and become active and effective

- (ix) the scale of the anticipated effects
- (x) any places which are, or can be connected via openings to, places in which explosive atmospheres may occur
- (xi) such additional safety information as the responsible person may need in order to complete the assessment.

Part 2 – Matters to be taken into particular account in risk assessment in respect of young persons

- The matters are:
 - the inexperience, lack of awareness of risks and immaturity of young persons
 - the fitting-out and layout of the premises
 - the nature, degree and duration of exposure to physical and chemical agents
 - the form, range and use of work equipment and the way in which it is handled
 - the organisation of processes and activities
 - the extent of the safety training provided or to be provided to young persons
 - risks from agents, processes and work listed in the Annex to Council Directive 94/33/EC on the protection of young people at work.

Part 3 – Principles of prevention

- These principles are:
 - avoiding risks
 - evaluating the risks which cannot be avoided
 - combating the risks at source
 - adapting to technical progress
 - replacing the dangerous by the non-dangerous or less-dangerous
 - developing a coherent overall prevention policy which covers technology, organisation of work and the influence of factors relating to the working environment
 - giving collective protective measures priority over individual protective measures
 - giving appropriate instructions to employees.

Part 4 – Measures to be taken in respect of dangerous substances

- In applying measures to control risks the responsible person must, in order of priority:
 - reduce the quantity of dangerous substances to a minimum
 - avoid or minimise the release of a dangerous substance
 - control the release of a dangerous substance at source
 - prevent the formation of an explosive atmosphere, including the application of appropriate ventilation
 - ensure that any release of a dangerous substance which may give rise to risk is suitably collected, safely contained, removed to a safe place or otherwise rendered safe, as appropriate
 - avoid:
 - (i) ignition sources including electrostatic discharges
 - (ii) such other adverse conditions as could result in harmful physical effects from a dangerous substance
 - segregate incompatible dangerous materials
- The responsible person must ensure that mitigation measures applied in accordance with article 12(3)(b) include:
 - reducing to a minimum the number of persons exposed
 - measures to avoid the propagation of fires or explosions
 - providing explosion pressure relief arrangements
 - providing explosion suppression equipment
 - providing plant which is constructed so as to withstand the pressure likely to be produced by an explosion
 - providing personal protective equipment
- The responsible person must:
 - ensure that the premises are designed, constructed and maintained so as to reduce risk
 - ensure that suitable special, technical and organisational measures are designed, constructed, assembled, installed, provided and used so as to reduce risk

- ensure that special, technical and organisational measures are maintained in an efficient state, in efficient working order and in good repair
- ensure that equipment and protective systems meet the following requirements:
 - (i) where power failure can give rise to the spread of additional risk, equipment and protective systems must be able to be maintained in a safe state of operation independently of the rest of the plant in the event of power failure
 - (ii) means for manual override must be possible, operated by employees competent to do so, for shutting down equipment and protective systems incorporated within automatic processes which deviate from the intended operating conditions, provided that the provision or use of such means does not compromise safety
 - (iii) on operation of emergency shutdown, accumulated energy must be dissipated as quickly and as safely as possible or isolated so that it no longer constitutes a hazard and
 - (iv) necessary measures must be taken to prevent confusion between connecting devices
- where the work is carried out in hazardous places or involves hazardous activities, ensure that appropriate systems of work are applied including:
 - (i) the issuing of written instructions for carrying out the work and
 - (ii) a system of permits to work, with such permits being issued by a person with responsibility for this function prior to commencement of the work concerned.



1(e) HSE guidance notes

The safe use of compressed gases in welding, flame cutting and allied processes

The storage of flammable liquids in containers

The storage of flammable liquids in tanks

**2(b) Hazard checklists***Fire safety***3(a) Tables and figures***Fire instruction notice*

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

Responsible for enforcement

HSE and local authorities

Level of duty

Absolute

Duties of responsible persons

- Notify the relevant enforcing authority by quickest practicable means and make a report on the approved form in the case of:
 - the death of any person as a result of an accident arising out of or in connection with work any person at work suffering a specified major injury
 - any person who is not at work suffering an injury as a result of an accident arising out of or in connection with work and where that person is taken to hospital for treatment
 - any person who is not at work suffering a major injury as a result of an accident arising out of or in connection with work at a hospital
 - where there is a dangerous occurrence
- As soon as practicable, and within 10 days, report any situation where a person at work is incapacitated for more than 3 consecutive days (excluding the day of the accident but including any days which would not have been working days) because of an injury resulting from an accident arising out of or in connection with work
- Where an employee has suffered a reportable injury which is a cause of his death within one year of the date

of the accident, inform the relevant enforcing authority as soon as it comes to his knowledge

- Where:
 - a person at work
 - a person at an offshore workplace
 suffers a scheduled occupational disease, send a report to the relevant enforcing authority
- Keep records of all reportable injuries, diseases and dangerous occurrences.

Duties of conveyors of flammable gas through a fixed pipe distribution system and of fillers, importers and suppliers of refillable containers containing LPG

- Report death or major injury which has arisen out of or in connection with the gas distributed, filled, imported or supplied within 14 days to the HSE.

Duties of CORGI-registered gas installers

- Where a gas fitting or flue or ventilation used in connection with that fitting is or has been likely to cause death or any major injury by reason of:
 - accidental leakage of gas
 - inadequate combustion of gas
 - inadequate removal of the products of combustion of gas

within 14 days, send a report to the HSE

- Report forms
 - Form 2508 Report of an injury or dangerous occurrence
 - Form 2508A Report of a case of disease
 - Form 2508G Report of a gas incident.

Notifiable and reportable major injuries

- Any fracture other than to the fingers, thumbs or toes
- Any amputation
- Dislocation of the hip, knee or spine
- Loss of sight (whether temporary or permanent)
- A chemical or hot metal burn to the eye
- Any injury resulting from electric shock or electrical burn (including any electrical burn caused by arcing or arcing products) leading to unconsciousness or requiring resuscitation or admittance to hospital for more than 24 hours

- Any other injury:
 - (a) leading to hypothermia, heat-induced illness or to unconsciousness
 - (b) requiring resuscitation or
 - (c) requiring admittance to hospital for more than 24 hours
- Loss of consciousness caused by asphyxia or by exposure to a harmful substance or biological agent
- Either of the following conditions which result from the absorption of any substance by inhalation, ingestion or through the skin:
 - (a) acute illness requiring medical treatment, or
 - (b) loss of consciousness
- Acute illness which requires medical treatment where there is reason to believe that this resulted from exposure to a biological agent or its toxins or infected material.

Dangerous occurrences

- Classified under
 1. General
 2. Dangerous occurrences which are reportable in relation to mines
 3. Dangerous occurrences which are reportable in relation to quarries
 4. Dangerous occurrences which are reportable in respect of relevant transport systems
 5. Dangerous occurrences which are reportable in respect of an offshore workplace.

Reportable diseases

- Classified under
 1. Conditions due to physical agents and the physical demands of work
 2. Infections due to biological agents
 3. Conditions due to substances.



1(e) HSE guidance notes

A guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

Investigating accidents and incidents

The cost of accidents at work



3(a) Tables and figures

Reporting of Injuries, Diseases and Dangerous Occurrences

Regulations 1995 – Reporting requirements



3(b) Forms

Reporting of Injuries, Diseases and Dangerous Occurrences

Regulations 1995 – Report of an injury or dangerous occurrence (Form 2508)

Reporting of Injuries, Diseases and Dangerous Occurrences

Regulations 1995 – Report of a case of disease (Form 2508A)

Safety Representatives and Safety Committees Regulations 1977

Responsible for enforcement

HSE and local authorities

Level of duty

Absolute

Defence

None

Functions of a trade union

- To appoint safety representatives from amongst the employees of a recognised trade union
- To notify the employer in writing the names of the persons appointed as safety representatives and the group or groups of employees they represent
- To terminate the appointments of safety representatives.

Functions of safety representatives

- To investigate potential hazards and dangerous occurrences and to examine the cause of accidents at the workplace
- To investigate complaints by any employee he represents relating to that employee's health, safety or welfare at work
- To make representation to the employer on matters arising from the above functions

- To make representations to the employer on general matters affecting the health, safety or welfare at work of the employees at the workplace
- To carry out inspections of the workplace
 - (a) on a frequent basis
 - (b) where there has been a substantial change in the conditions of work
 - (c) where new information has been published by the HSC or HSE
 - (d) where there has been a notifiable accident or dangerous occurrence in a workplace
- To inspect and take copies of documents relevant to the workplace or to the employees the safety representative represents which the employer is required to keep
- To receive information which, within the employer's knowledge, is necessary to enable them to fulfil their functions
- To represent the employees he was appointed to represent in consultations at the workplace with inspectors of the HSE and of any other enforcing authority
- To receive information from inspectors
- To request the establishment of a safety committee
- To attend meetings of safety committees
- To give the employer reasonable notice in writing prior to workplace inspections.

Duties of employers

- To permit safety representatives to take such time off with pay during working hours as necessary for:
 - (a) performing the above functions; and
 - (b) undergoing such training in aspects of those functions as may be reasonable in all the circumstances
- To provide facilities and assistance for the purpose of carrying out inspections
- When requested by safety representatives, to establish a safety committee not later than 3 months following the request.



1(d) Approved codes of practice

Safety representatives and safety committees



1(e) HSE guidance notes

Investigating accidents and incidents

Safety representatives and safety committees

Safety Signs Regulations 1980

Responsible for enforcement

HSE, local authorities

Level of duty

Absolute

Duties of employers

- Any sign displayed in the workplace must comply with the specification of signs contained in BS 5378: Part 1: 1980 Safety Signs and Colours: Specifications for Colour and Design Classification of signs:
 - Prohibition e.g. No smoking
 - Warning e.g. Risk of slipping
 - Mandatory e.g. Eye protection must be worn
 - Safe condition e.g. Fire exit



3(a) Tables and figures

Safety signs

Simple Pressure Vessels (Safety) Regulations 1991

Responsible for enforcement

HSE

Level of duty

Absolute

Duties of manufacturers

- In the case of vessels with a stored energy over 50 bar litres:
 - meet the essential safety requirements
 - have safety clearance

- bear the EC mark and other specified inscriptions
- be accompanied by manufacturer's instructions
- be safe (as defined)
- In the case of vessels with a stored energy up to 50 bar litres
 - must be manufactured in accordance with engineering practice recognised as sound in the Community country
 - bear specific inscriptions (but not the EC mark)
 - be safe
- Where he has obtained an EC certificate of conformity, may apply the CE mark to any vessels covered by the certificate where he executes an EC declaration of conformity
- Ensure the EC mark consists of the appropriate symbol, the last two digits of the year in which the mark is applied and, where appropriate, the distinguishing number assigned by the EC to the approved body responsible for EC verification or EC surveillance
- Must apply specified inscriptions to Category A and B vessels
- Duties of approved bodies (i.e. approved by the Secretary for Trade and Industry)
- Where it has issued an EC verification certificate, to ensure the application of the EC mark to every vessel covered by the certificate
- Undertake EC surveillance where a certificate has been issued.



1(e) HSE guidance notes

The assessment of pressure vessels working at low temperature

Work at Height Regulations 2005

Responsible for enforcement

HSE and local authorities

Level of duty

Absolute and SFARP

Defence

None

Duties of employers

- Ensure work at height is:
 - properly planned
 - appropriately supervised and
 - carried out in a manner which is safe(SFARP)and that its planning includes the selection of work equipment in accordance with requirements below and for emergencies and rescue
- Ensure work at height is carried out only when the weather conditions do not jeopardise the health and safety of persons involved
- Ensure that no person engages in any activity, including organisation, planning and supervision, in relation to work at height of work equipment for use in such work, unless he is competent to do so or, if being trained, is supervised by a competent person
- Take account of risk assessment under the MHSWR
- Ensure that work is not carried out at height where it is not RP to carry out the work safely otherwise than at height
- Take suitable and sufficient measures to prevent any person falling a distance liable to cause personal injury (SFARP)
- Above measures shall include:
 - ensuring that work is carried out:
 - from an existing place of work or
 - (in the case of obtaining access or egress) using an existing means which complies with Schedule 1, where it is RP to carry it out safely and under appropriate ergonomic conditions and
 - where not RP for the work to be carried out as above, his providing sufficient work equipment for preventing a fall occurring (SFARP)
- Where the above measures do not eliminate the risk of a fall, every employer shall:
 - provide sufficient work equipment (SFARP) to minimise
 - the distance and consequences or

- where it is not RP to minimise the distance, the consequences of a fall and
 - provide such additional training and instruction or take other additional suitable and sufficient measures to prevent any person falling a distance liable to cause injury (RP)
- In selecting work equipment for use in work at a height:
 - give collective protection measures priority over personal protection measures; and take account of:
 - the working conditions and the risks
 - in the case of work equipment for access or egress, the distance to be negotiated
 - the distance and consequences of a potential fall
 - the duration and frequency of use
 - the need for easy and timely evacuation and rescue in an emergency
 - any additional risk posed by the use, installation or removal of that work equipment or by
 - evacuation and rescue from it and
 - the other provisions of these regulations
- Select work equipment for work at height which:
 - has characteristics including dimensions which:
 - are appropriate to the nature of the work to be performed and the foreseeable loadings and
 - allow passage without risk
 - is in other respects the most suitable work equipment, having regard to the purposes specified above with respect to the avoidance of risks
- Ensure that, in the case of:
 - guard rail, toe board, barrier or similar collective means of protection, Schedule 2 is complied with
 - a working platform, Part 1 of Schedule 3 is complied with and
 - where scaffolding is provided, Part 2 of Schedule 3 is also complied with
 - a net, airbag or other collective safeguard for arresting falls which is not part of a personal fall protection system, Schedule 4 is complied with

- a personal fall protection system, Part 1 of Schedule 5 is complied with
- in the case of a work positioning system, Part 2 of Schedule 5 is complied with
- in the case of rope access and positioning techniques, Part 3 of Schedule 5 is complied with
- in the case of a fall arrest system, Part 4 of Schedule 5 is complied with
- in the case of a work restraint system, Part 5 of Schedule 5 is complied with and
- a ladder, Schedule 6 is complied with
- Ensure that no person at work passes across or near, or works on, from or near, a fragile surface where it is RP to carry out work safely and under appropriate ergonomic conditions without his doing so
- Where not RP to carry out work as above:
 - ensure that suitable and sufficient platforms, coverings, guard rails or similar means of support or protection are provided and used (RP) so that any foreseeable loading is supported by such supports or borne by such protection
 - where the risk of a person falling remains despite the above measures, take suitable and sufficient measures to minimise the distances and consequences of his fall
- Where any person may pass across or near, or work on, from or near, a fragile surface, shall ensure that:
 - prominent warning notices are affixed to the place where the fragile surface is situated (RP) or
 - where not RP, such persons are made aware of it by other means
- Take suitable and sufficient steps to prevent the fall of any material (RP)
- Where not RP to comply with the above, take suitable and sufficient steps to prevent any person being struck by any falling material or object
- Ensure no material or object is thrown or tipped from height in circumstances where it is liable to cause injury to any person

- Ensure materials and objects are stored in such a way as to prevent risk arising from the collapse, overturning or unintended movement of same
- Ensure that:
 - where a workplace contains a danger area where there is a risk of a person:
 - falling a distance or
 - being struck by a falling object

which is liable to cause injury, the workplace is equipped with devices preventing unauthorised persons from entering such areas (RP) and such area is clearly indicated.

- In the case of:
 - guard rails, toe boards, barriers and similar collective means of protection
 - working platforms
 - scaffolding
 - collective safeguards for arresting falls
 - personal fall protection systems; and
 - ladders (see Schedules 2 to 6)

ensure that where safety of work equipment depends on how it is installed or assembled, it is not used after installation or assembly unless it has been inspected in that position

- Ensure 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 equipment have occurred
 - to ensure that health and safety conditions are maintained and that any deterioration can be detected and remedied in good time

- Ensure that a working platform:
 - used for construction work and
 - from which a person could fall 2 metres or more
 is not used in any position unless it has been inspected in that position or, in the case of a mobile working

platform, inspected on the site, within the previous 7 days

- Ensure that no work equipment, other than lifting equipment to which LOLER applies:
 - 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 inspection required to be carried out has been carried out
- Ensure that an inspection is recorded and kept until the next inspection is recorded
- Keep the above report or a copy of same
 - at the site where the inspection was carried out until the construction work is completed and
 - thereafter at an office of his for 3 months
- Ensure that the surface and every parapet, permanent rail or other such fall protection measure of every place of work at height are checked on each occasion before the place is used (RP).

Duties of persons carrying out inspections

- Shall:
 - before the end of the working period within which the inspection is completed, prepare a report containing the particulars set out in Schedule 7 and
 - within 24 hours of completing the inspection, provide the report or a copy thereof to the person on whose behalf the inspection was carried out.

Duties of persons at work

- Where working under the control of another person, report to that person any activity or defect relating to work at height which he knows is liable to endanger the safety of himself or another person
- Use any work equipment or safety device provided for him in accordance with:
 - any training in the use of the work equipment or device concerned which has been received by him and

- the instructions respecting that use which have been provided to him by that employer or person in compliance with the relevant statutory provisions.

Schedules

- Requirements for existing places of work and means of access or egress at height
- Requirements for guard rails, toe boards, barriers and similar collective means of protection
- Requirements for working platforms
 1. requirements for all working platforms
 2. additional requirements for scaffolding
- Requirements for collective safeguards for arresting falls
- Requirements for personal fall protection systems
 1. requirements for all personal fall protection systems
 2. additional requirements for work positioning systems
 3. additional requirements for rope access and positioning techniques
 4. additional requirements for fall arrest systems
- Additional requirements for work restraint systems
- Requirements for ladders
- Particulars to be incorporated in a report of inspection.

Workplace (Health, Safety and Welfare) Regulations 1992

Responsible for enforcement

HSE and local authorities

Level of duty

Absolute

Defence

None

Duties of employers

- Workplace and the equipment, devices and systems to which this regulation applies shall be maintained (which includes them being cleaned as appropriate) in an efficient state, in efficient working order and in good repair

- The equipment, devices and systems to which this regulation applies are:
 - equipment and devices that if a fault occurred in them, would then be likely to fail to comply with any of these regulations and
 - mechanical ventilation systems
- Effective and suitable provision shall be made to ensure that every enclosed workplace is ventilated by a sufficient quantity of fresh air
- During working hours, the temperature in all workplaces inside buildings shall be reasonable. (The ACOP to the regulations specifies a minimum temperature of 16°C, except where work involves severe physical effort, in which case it should be at least 13°C)
- Workplaces must have suitable and sufficient lighting, together with emergency lighting where employees may be exposed to danger in the event of the lighting system failing
- Workplaces, and the furniture, furnishings and fittings, must be kept sufficiently clean
- Floor, wall and ceiling surfaces shall be capable of being kept sufficiently clean
- Workrooms shall have sufficient floor area, height and unoccupied floor space for the purposes of health, safety and welfare. Every employee shall have a minimum space of 11 m³, and no space more than 4.2 m from the floor shall be taken into account
- Workstations shall be suitable for the persons undertaking the work and for the type of work undertaken. A suitable seat shall be provided for persons whose work, or a substantial part of it, can be done sitting
- Floors and traffic routes shall be of such construction as to be suitable for their purpose
- So far as is reasonably practicable, suitable and effective measures shall be taken to prevent any person falling a distance and being struck by a falling object, in both cases, likely to cause injury
- Windows or other transparent or translucent surfaces in walls or partitions, and transparent or translucent surfaces

- in doors or gates, must be of safety material and be appropriately marked to make them apparent
- Windows, skylights and ventilators must be capable of being opened, closed or adjusted in such a manner as to prevent a person performing these operations to be exposed to risk
 - Windows and skylights must be so designed or constructed as to enable safe cleaning of same
 - Workplaces must be organised in such a way as to ensure safe circulation by pedestrians and vehicles
 - Doors and gates must be suitably constructed (including being fitted with any necessary safety devices)
 - Escalators and moving walkways must function safely, be equipped with necessary safety devices and fitted with one or more emergency stop controls
 - Suitable and sufficient sanitary conveniences must be provided at readily accessible places
 - At least 1 WC must be provided for every 25 males and females (or proportion of 25)
 - Suitable and sufficient washing facilities, including showers if required by the nature of the work or for health reasons, shall be provided at readily accessible places
 - An adequate supply of wholesome drinking water must be provided
 - Suitable and sufficient accommodation for clothing not worn during working hours, or for special clothing which is not taken home, must be provided
 - Suitable and sufficient facilities shall be provided to enable employees to change clothing in cases where employees have to change clothing for the purposes of work. Separate facilities, or the separate use of facilities, shall be provided for men and women for reasons of propriety
 - Suitable and sufficient rest facilities, including those for pregnant women or nursing mothers, shall be provided, together with facilities to eat meals where meals are regularly eaten in the workplace.



1(d) Approved codes of practice

Workplace health, safety and welfare



1(d) HSE guidance notes

A pain in your workplace: ergonomic problems and solutions

General ventilation in the workplace

Lighting at work

Seating at work

Slips and trips

Thermal comfort in the workplace

Workplace transport safety



2(b) Hazard checklists

Floors and traffic routes

Maintenance work

Offices and commercial premises



3(a) Tables and figures

Air changes per hour (comfort ventilation)

Average illuminances and minimum measured illuminances

Maximum ratios of illuminance

Optimum working temperatures

Water closets and urinals for men

Water closets and wash station provision

1(d)

Approved codes of practice

Listed below are the principal approved codes of practice issued by the Health and Safety Commission. They are published by HMSO and are available through HSE books and booksellers.

Asbestos

- Control of asbestos at work
- The management of asbestos in non-domestic premises
- Work with asbestos insulation, asbestos coating and asbestos insulation board
- Work with asbestos that does not normally require a licence

Confined spaces

- Safe work in confined spaces

Construction

- Managing health and safety in construction

Dangerous substances and explosive atmospheres

- Unloading petrol from road tankers
- Design of plant, equipment and workplaces
- Storage of dangerous substances

- Control and mitigation measures
- Safe maintenance, repair and cleaning procedures
- Dangerous substances and explosive atmospheres

Diving operations

- Commercial diving projects offshore
- Commercial diving projects inland/offshore
- Media diving projects
- Recreational diving projects
- Scientific and archaeological diving projects

Docks

- Safety in docks

First aid

- First aid at mines
- First aid at work

Gas

- Safety in the installation and use of gas systems and appliances
- Standards of training in safe gas installation
- Design, construction and installation of gas service pipes

Ionising radiation

- Work with ionising radiation

Lead

- Control of lead at work

Legionnaires' disease

- The control of Legionella bacteria in water systems

Lifting equipment

- Safe use of lifting equipment

Lift trucks

- Rider-operated lift trucks

Management of health and safety

- Management of health and safety at work

Mines

- Safety of exit from mine underground workings
- Shafts and windings in mines
- First aid at mines
- The management and administration of safety and health at mines
- Explosives at coal and other safety-lamp mines
- The prevention of inrushes in mines
- Escape and rescue from mines

- The control of ground movement in mines
- The use of electricity in mines

Offshore installations

- Prevention of fire and explosion and emergency response on offshore installations
- Health care and first aid on offshore installations and pipeline works

Pesticides

- Safe use of pesticides for non-agricultural purposes

Petroleum spirit

- Plastic containers with nominated capacities up to five litres for petroleum spirit: Requirements for testing and marking or labelling

Pottery

- Control of substances hazardous to health in the production of pottery

Power presses

- Safe use of power presses

Pressure systems

- Safety of pressure systems

Quarries

- Health and safety at quarries
- The use of electricity at quarries

Railways

- Railway safety critical work

Safety representatives and safety committees

- Safety representatives and safety committees

Substances hazardous to health

- Control of substances hazardous to health
- Control of substances hazardous to health in fumigation operations

Work equipment

- Safe use of work equipment
- Safe use of power presses
- Safe use of woodworking machinery

Workplaces

- Workplace health, safety and welfare

Zoos

- Safety, health and welfare standards for employers and persons at work

1(e)

HSE guidance notes

The range of guidance notes issued by the HSE is extensive. Guidance notes are available through HSE Books and published in the following series:

- general (G)
- chemical safety (CS)
- plant and machinery (PM)
- medical (M)
- environmental hygiene (EH)
- legal (L).

Those guidance notes which are of both more general and specific application to workplaces are listed below.

- Application of electro-sensitive protective equipment using light curtains and light beam devices to machinery [HS(G)180]
- Approved classification and labelling guide [L131]
- Asbestos essentials task manual [HS(G)210]
- Assessing and managing risks at work from skin exposure to chemical agents [HS(G)205]
- The assessment of pressure vessels operating at low temperature [HS(G)93]
- Avoiding danger from underground services [HS(G)47]
- Backs for the future: safe manual handling in construction [HS(G)149]
- Biological monitoring in the workplace [HS(G)167]
- Bulk storage of acids [HS(G)235]
- CHIP for everyone [HS(G)228]
- Choice of skin care products for the workplace [HS(G)207]
- A comprehensive guide to managing asbestos in premises [HS(G)227]
- Compressed air safety [HS(G)39]
- Control of diesel engine exhaust emissions in the workplace [HS(G)187]

- The control of Legionella in water systems [L8]
- Control of substances hazardous to health in fumigation operations
- COSHH essentials: easy steps to control chemicals [HS(G)193]
- Cost and effectiveness of chemical protective gloves for the workplace [HS(G)206]
- Dangerous goods in cargo transport units [HS(G)78]
- Display screen equipment work: guidance on Regulations [L26]
- Drilling machines [PM83]
- Dust: general principles of prevention [EH44]
- Effective health and safety training [HS(G)222]
- Electrical safety in arc welding [HS(G)118]
- Electrical safety on construction sites [HS(G)141]
- Electricity at work: safe working practices [HS(G)85]
- Fire safety in construction: guidance for clients, designers and those managing and carrying out construction work involving significant risks [HS(G)168]
- Five steps to risk assessment [HS(G)183]
- General ventilation in the workplace [HS(G)202]
- A guide to the Construction (Head Protection) Regulations 1989 [L102]
- A guide to the Gas Safety (Management) Regulations [L80]
- A guide to the Health and Safety (Consultation with Employees) Regulations 1996 [L95]
- A guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 [HSIS1]
- A guide to the Work in Compressed Air Regulations 1996 [L96]
- Hand-arm vibration [HS(G)88]
- Health and safety in arc welding [HS(G)204]
- Health and safety in construction [HS(G)150]
- Health and safety in engineering workshops [HS(G)129]
- Health and safety in excavations [HS(G)185]
- Health and safety in roof work [HS(G)33]
- Health risk management: a guide to working with solvents [HS(G)188]

- Health risk management: a practical guide for managers in small and medium sized enterprises [HS(G)137W]
- Health surveillance at work [HS(G)61]
- How to deal with sick building syndrome [HS(G)132]
- Introduction to asbestos essentials [HS(G)213]
- Introduction to local exhaust ventilation [HS(G)37]
- Keeping electrical switch gear safe [HS(G)230]
- The law on VDUs [HS(G)90]
- Legionnaires' disease [L8]
- Lighting at work [HS(G)38]
- Maintenance, examination and testing of local exhaust ventilation [HS(G)54]
- Maintaining portable and transportable electrical equipment [HS(G)107]
- Managing contractors [HS(G)159]
- Managing crowds safely [HS(G)154]
- Managing health and safety in construction [HS(G)224]
- Managing health and safety in dock work [HS(G)177]
- Managing health and safety in swimming pools [HS(G)179]
- Managing health and safety on work experience [HS(G)199]
- Manual handling [HS(G)115]
- Manual handling: solutions you can handle [HS(G)115]
- Memorandum of Guidance on the Electricity at Work Regulations 1989 [HS(R)25]
- Monitoring strategies for toxic substances [HS(G)173]
- New and expectant mothers at work: a guide for employers [HS(G)122]
- A pain in your workplace: ergonomic problems and solutions [HS(G)121]
- Personal protective equipment at work: guidance on Regulations [L25]
- Power presses: maintenance and thorough examination [HS(G)236]
- Preventing asthma at work [L55]
- Preventing violence to retail staff [HS(G)133]
- Prevention of violence to staff in banks or building societies [HS(G)100]
- Protecting the public: Your next move [HS(G)151]

- Reducing error and influencing behaviour [HS(G)48]
- The safe use and handling of flammable liquids [HS(G)140]
- The safe use of compressed gases in welding, flame cutting and allied processes [HS(G)139]
- Safe use of lifting equipment [L113]
- Safe use of power presses [HS(G)236]
- The safe use of vehicles on construction sites [HS(G)144]
- Safe use of woodworking machinery [L114]
- Safe work in confined spaces [L101]
- Safe work with overhead travelling cranes [PM55]
- Safeguarding agricultural machinery [HS(G)89]
- Safety at autoclaves [PM73]
- Safety in pressure testing [GS4]
- Safety in the installation and use of gas systems and appliances [L56]
- Safety in the use of abrasive wheels [HS(G)17]
- Safety in the use of pallets [PM15]
- Safety in working with lift trucks [HS(G)6]
- Safety signs and signals: Health and Safety (Safety Signs and Signals) Regulations 1996: guidance on Regulations [L64]
- Seating at work [HS(G)57]
- The selection, use and maintenance of respiratory protective equipment [HS(G)53]
- Seven steps to successful substitution of hazardous substances [HS(G)110W]
- Slips and trips [HS(G)155]
- Sound solutions: Techniques to reduce noise at work [HS(G)138]
- A step-by-step guide to COSHH assessment [HS(G)97]
- The storage of flammable liquids in containers [HS(G)51]
- The storage of flammable liquids in tanks [HS(G)176]
- Successful health and safety management [HS(G)65]
- Tackling work-related stress [HS(G)218]
- Thermal comfort in the workplace [HS(G)194]
- The training of first aid at work [HS(G)212]
- Upper limb disorders in the workplace [HS(G)60]
- Vibration solutions [HS(G)170]

- Workplace exposure limits [EH40]
- Workplace transport safety [HS(G)136]
- Work-related upper limb disorders [HS(G)60]
- Work-related violence [HS(G)229]
- Work with asbestos cement [HS(G)189/2]
- Work with display screen equipment [L26]
- Young people at work [HS(G)165]

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PART 2

Health and Safety Management

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2(a)

Health and safety management in practice

The duty on employers to manage health and safety is clearly specified in the Management of Health and Safety at Work Regulations. This part of the *Health and Safety Pocket Book* outlines a number of practical aspects of health and safety management.

Accident costs

All accidents represent both direct and indirect costs to employers and many organisations endeavour to calculate both the direct and indirect costs with a view to identifying future management strategies.

These costs may be summarised using the accident cost assessment form shown on next page.

Accident cost assessment form

£ p

Direct costs

- % of occupier's liability premium
- % of increased premiums payable

Claims

- Fines and damages awarded in courts
- Court and legal representation costs

Indirect costs

Treatment

- First aid
- Transport
- Hospital
- Other costs

Lost time

- Injured person
- Management
- Supervisor(s)
- First Aiders
- Other persons

Production

- Lost production
- Overtime payments
- Damage to plant, equipment, structures, vehicles, etc.
- Training and supervision of replacement labour

Investigation

- Management
- Safety adviser
- Others e.g. safety representatives
- Liaison with enforcement authority officers

Other costs

- Ex-gratia payment to injured person
- Replacement of personal items of:
 - (i) injured person
 - (ii) other persons
- Other miscellaneous costs

TOTAL COSTS

Accident investigation procedure

Anyone investigating an accident, particularly a fatal or major injury accident, or a scheduled dangerous occurrence, needs to follow a specific procedure.

1. Establish the facts surrounding the accident as quickly and completely as possible with respect to:
 - (a) the work environment in which the accident took place, e.g. location, lighting;
 - (b) the plant, machinery, equipment, and hazardous substance involved;
 - (c) the system of work or working procedure involved; and
 - (d) the sequence of events leading to the accident.
2. Produce sketches and diagrams of the accident scene.
3. Take photographs of the accident scene before anything is moved.
4. Identify all witnesses and make a list of witnesses.
5. Interview all witnesses in the presence of a third party and take full statements. (Witnesses should be cautioned prior to making a statement.) Do not prompt or lead the witnesses. Witnesses should agree any written statements produced, and sign and date these statements.
6. Evaluate the facts and individual witnesses' versions of the events leading to the accident with respect to accuracy, reliability and relevance.
7. Endeavour to arrive at conclusions as to both the indirect and direct causes of the accident on the basis of the relevant facts.
8. Examine closely any contradictory evidence. Never dismiss a fact that does not fit in with the rest of the facts. If necessary, find out more.
9. Examine fully the system of work in operation, in terms of the persons involved with respect to age, training, experience, level of supervision and the nature of the work, e.g. routine, sporadic or incidental.

10. In certain cases it may be necessary for plant and equipment to be examined by an expert, such as a consultant engineer.
11. Produce a written report indicating the stages prior to the accident and emphasising the causes of same. Measures to prevent a recurrence should also be incorporated in such a report. The report should be presented to the employer or his representative.
12. In complex and serious cases, it may be appropriate to establish a small investigating committee comprising the responsible manager, supervisors, safety representatives and technical specialists.
13. It should be appreciated that the thorough investigation of accidents is essential particularly where there may be the possibility of criminal proceedings by the enforcement authority and/or civil proceedings by the injured party or his representatives.

Benchmarking

A benchmark is a reference point which is commonly used in surveying practice. More recently, the term has been used to imply some form of standard against which an organisation can measure performance and, as such, is an important business improvement tool in areas such as quality management. Health and safety benchmarking follows the same principles whereby an organisation's health and safety performance can be compared with a similar organisation or 'benchmarking partner'.

The HSE publication *Health and safety benchmarking – Improving together* (IND G301/1999) defines health and safety benchmarking as 'a planned process by which an organisation compares its health and safety processes and performance with others to learn how to:

1. reduce accidents and ill-health;

2. improve compliance with health and safety law; and/or
3. cut compliance costs.'

The benchmarking process

Health and safety benchmarking is a five-step cycle aimed at ensuring continuous improvement.

At the commencement of the process it would be appropriate to form a small benchmarking team or group, perhaps comprising a senior manager, health and safety specialist, line managers, employee representatives and representatives from the benchmarking partner or trade association.

Step 1 – Deciding what to benchmark

Benchmarking can be applied to any aspect of health and safety, but it is good practice to prioritise in terms of high hazard and risk areas, such as with the use of hazardous substances, with certain types of workplace or working practice. Feedback from safety monitoring activities, the risk assessment process and accident data should identify these priorities. Consultation with the workforce should take place at this stage, together with trade associations who may have experience of the process.

Step 2 – Deciding where you are

This stage of the exercise is concerned with identifying the current level of performance in the selected area for consideration and the desired improvement in performance. Reference should be made at this stage to legal requirements, such as regulations, to ACOPs and HSE guidance on the subject, and to any in-house statistical information. It may be appropriate to use an audit and/or questionnaire approach to measure the current level of performance.

Step 3 – Selecting partners

In large organisations it may be appropriate to select partners both from within the organisation, perhaps at a different

geographical location (internal benchmarking) and from outside the organisation (external benchmarking). With smaller organisations, trade associations or the local Chamber of Commerce may be able to assist in the selection of partners. Local benchmarking clubs operate in a number of areas. Reference should be made to the *Benchmarking Code of Conduct* to ensure compliance with same at this stage.

Step 4 – Working with your partner

With the right planning and preparation, this stage should be straightforward. Any information that is exchanged should be comparable, confidentiality should be respected and all partners should have a good understanding of the partner's process, activities and business objectives.

Step 5 – Acting on lessons learned

Fundamentally, the outcome of any benchmarking exercise is to learn from other organisations, to learn more about the individual organisation's performance compared with the working partners and to take action to improve performance.

SMARTT

According to the HSE, any action plan should be 'SMARTT', that is:

- Specific
- Measurable
- Agreed
- Realistic
- Trackable **and**
- Timebound.

As with any action plan, it should identify a series of recommendations, the members of the organisation responsible for implementing these recommendations and a timescale for their implementation. Progress in implementation should be monitored on a regular basis. In some cases it may be necessary to redefine objectives in the light, for example, of recent legislation.

There should be a continuing liaison with benchmarking partners during the various stages of the action plan.

Pointers to success

To succeed in health and safety benchmarking, there should be:

- senior management resources and commitment
- employee involvement
- a commitment to an open and participatory approach to health and safety, including a willingness to share information with others within and outside the organisation
- comparison with data on a meaningful 'apples with apples' basis; and
- adequate research, planning and preparation.

BS 8800: Guide to occupational health and safety management systems

BS 8800: 2004 offers an organisation the opportunity to review and revise its current occupational health and safety arrangements against a standard that has been developed by industry, commerce, insurers, regulators, trade unions and occupational health and safety practitioners.

The aims of the standard are 'to improve the occupational health and safety performance of organisations by providing guidance of how management of occupational health and safety may be integrated with the management of other aspects of the business performance in order to:

- minimise risks to employees and others;
- improve business performance; and
- assist organisations to establish a responsible image in the workplace.'

In order to achieve positive benefits, health and safety management should be an integral feature of the undertaking contributing to the success of the organisation.

Status review

In any status review of the health and safety management system, BS 8800 recommends the following headings:

1. Requirements of relevant legislation dealing with health and safety management issues.
2. Existing guidance on health and safety management within the organisation.
3. Best practice and performance in the organisation's employment sector and other appropriate sectors e.g. from relevant HSC's industry advisory committees and trade association guidelines.
4. Efficiency and effectiveness of existing resources devoted to health and safety management.

Policies

BS 8800 identifies nine key areas that should be addressed in a policy, each of which allows visible objectives and targets to be set:

- recognising that occupational health and safety is an integral part of its business performance;
- achieving a high level of health and safety performance, with compliance to legal requirements as the minimum and continual cost effective improvement in performance;
- provision of adequate and appropriate resources to implement the policy;
- the publishing and setting of health and safety objectives, even if only by internal notification;
- placing the management of health and safety as a prime responsibility of line management, from most senior executive to first-line supervisory level;
- ensuring understanding, implementation and maintenance of the policy statement at all levels in the organisation;
- employee involvement and consultation to gain commitment to the policy and its implementation;

- periodic review of the policy, the management system and audit of compliance to policy;
- ensuring that employees at all levels receive appropriate training and are competent to carry out their duties and responsibilities.

The models

There are two recommended approaches depending upon the organisational needs of the business and with the objective that such an approach will be integrated into the total management system, namely:

- (a) one based on *Successful health and safety management* [HS(G)65]; and
- (b) one based on ISO 14001, which is compatible with the environmental standard.

Cleaning schedules

There is an implied duty in the Workplace (Health, Safety and Welfare) Regulations on employers to keep the workplace clean. Any management system for dealing with this matter should involve the use of formally written and supervised cleaning schedules. Compliance with cleaning schedules should be monitored on a frequent basis.

Elements of a cleaning schedule

A cleaning schedule should incorporate the following elements:

- the item or area to be cleaned
- the method, materials and equipment to be used
- the frequency of cleaning
- individual responsibility for ensuring the cleaning task is completed satisfactorily
- specific precautions necessary e.g. in the use of cleaning chemicals, segregation of areas to be cleaned.

Cleaning schedules should be laid out in tabular form incorporating the above elements.

Those involved in monitoring the effectiveness of the cleaning schedule should be trained in inspection techniques and should have sufficient authority within the organisation to require immediate action where failure to implement the parts of the schedule has occurred.

Competent persons

Health and safety legislation frequently requires an employer to appoint competent persons for a range of purposes. In general terms, 'competence' implies the possession of skill, knowledge and experience with respect to the tasks undertaken by that competent person.

According to *Brazier v Skipton Rock Company Limited (1962) 1 AER*, a competent person should have practical and theoretical knowledge as well as sufficient experience of the particular machinery, plant or procedure involved as will enable him to identify defects or weaknesses during plant or machinery examinations, and to assess their importance in relation to the strength and function of that plant and machinery.

The duty to appoint competent persons is covered in the Management of Health and Safety at Work Regulations 1999, thus:

Regulation 7 – Health and safety assistance

Every employer shall appoint one or more competent persons to assist him in undertaking the measures he needs to take to comply with the requirements and prohibitions imposed upon him by or under the relevant statutory provisions.

A person shall be regarded as competent where he has sufficient training and experience or knowledge and other qualities to enable him properly to assist the employer in undertaking the measures he needs to take to comply with the requirements and prohibitions imposed upon the employer by or under the relevant statutory provisions.

Regulation 8 – Procedures for serious and imminent danger and for danger areas

An employer must nominate a sufficient number of competent persons to implement those procedures as they relate to evacuation from premises of persons at work in his undertaking and ensure that none of his employees has access to any area occupied by him to which it is necessary to restrict access on the grounds of health and safety unless the employee concerned has received adequate health and safety instruction.

Further information is incorporated in the ACOP to the Regulations.

Other health and safety legislation requiring the appointment of competent persons includes:

Mines and Quarries Act 1954

Construction (Design and Management) Regulations 1994

Construction (Health, Safety and Welfare) Regulations 1996

Electricity at Work Regulations 1989

Ionising Radiations Regulations 1999

Lifting Operations and Lifting Equipment Regulations 1998

Control of Noise at Work Regulations 2005

Pressure Systems Safety Regulations 2000

Provision and Use of Work Equipment Regulations 1998

Work at Height Regulations 2005



1(c) Principal regulations

Construction (Design and Management) Regulations 1994

Construction (Health, Safety and Welfare) Regulations 1996

Control of Noise at Work Regulations 2005

Electricity at Work Regulations 1989

Ionising Radiations Regulations 1999

Lifting Operations and Lifting Equipment Regulations 1998

Pressure Systems Safety Regulations 2000

Provision and Use of Work Equipment Regulations 1998

Work at Height Regulations 2005

Consequence analysis

Consequence analysis is a feature of risk analysis which considers the physical effects of a particular process failure and the damage caused by these effects. It is undertaken to form an opinion on potentially serious hazardous outcomes of accidents and their possible consequences for people and the environment. The technique should be used as a tool in the decision-making process in a safety study which incorporates the following features:

- (a) description of the process system to be investigated;
- (b) identification of the undesirable events;
- (c) determination of the magnitude of the resulting physical effects;
- (d) determination of the damage;
- (e) estimation of the probability of the occurrence of calculated damage; and
- (f) assessment of the risk against established criteria.

The outcome of consequence analysis is:

- (a) for the chemical and process industries, to obtain information about all known and unknown effects that are of importance when something goes wrong in the plant and to obtain information on measures for dealing with catastrophic events;
- (b) for the designing industries, to obtain information on how to minimise the consequences of accidents;
- (c) for the operators in the processing plant and people living in the immediate vicinity, to give them an understanding of their personal situation and the measures being taken to protect them; and
- (d) for the enforcement and legislative authorities, to provide them with information on measures being taken to ensure compliance with current legal requirements.

Consequence analysis is generally undertaken by a team of specialists, including chemists and safety technologists, experienced in the actual problems of the system concerned.

Dose record (ionising radiation)

Where employees may be exposed to ionising radiation, an individual dose record must be maintained by their employer.

In relation to a person, 'dose record' means the record of the doses received by that person as a result of his exposure to ionising radiation, being the record made and maintained on behalf of the employer by the approved dosimetry service in accordance with Regulation 21 of the Ionising Radiations Regulations.

Records must be made or maintained until that person has or would have attained the age of 75 years but in any event for at least 50 years from when they were made.



1(c) Principal regulations

Ionising Radiations Regulations 1999

Event tree analysis

This technique is similar to fault tree analysis, working from a selected 'initiating event', such as an electrical fault in a manufacturing system. It is, basically, a systematic representation of all the possible states of the processing system conditional to the specific initiating event and relevant for a certain type of outcome, such as a major fire or unsafe feature of the manufacturing system.

Failure mode and effect analysis

This technique is based on identifying the possible failure modes of each component of a system and predicting the consequences of that failure. For example, if a safety device linked to a machinery guard fails, it could result in the operator being

exposed to danger. As a result, attention is paid to those consequences at the design stage of the machinery safety system and in the preparation of the planned preventive maintenance procedure for the machine.

Fault tree analysis

A form of safety management technique which begins with the consideration of a chosen 'top event', such as a pressure vessel explosion, and then assesses the combination of failures and conditions which could cause this event to take place.

This technique is used widely in quantitative risk analysis, particularly where control over process controls is critical to meeting safety standards.

Health and safety file

This is a document containing information for the client or user of a building on the risks that may be present during maintenance, repair or renovation. Under the Construction (Design and Management) Regulations, the appointed planning supervisor for a project must ensure that the health and safety file is prepared and delivered to the client at the end of the project.

The client must take reasonable steps to ensure that the information in any health and safety file is kept available for inspection by any person who may need information in the file for the purpose of complying with the requirements and prohibitions imposed upon him by or under the relevant statutory provisions.



1(c) Principal regulations

Construction (Design and Management) Regulations 1994



1(d) Approved code of practice

Managing construction for health and safety

Health and safety plans

Requirements relating to the preparation of health and safety plans for a project are covered in Regulation 15 of the Construction (Design and Management) Regulations.

Pre-tender stage health and safety plan

A planning supervisor appointed for a project must ensure that a health and safety plan has been prepared prior to the project commencing.

Construction phase health and safety plan

The principal contractor must take such measures as is reasonable to ensure that a health and safety plan is prepared which covers the construction phase.

The contents of both types of health and safety plan are specified in the regulations and ACOP.



1(c) Principal regulations

Construction (Design and Management) Regulations 1994



1(d) Approved codes of practice

Managing construction for health and safety

Health and safety training

The Health and Safety at Work etc. Act, together with many regulations, place either absolute or qualified duties on employers to provide health and safety training for employees.

As with any training process, establishment of training programmes should follow a series of clearly defined stages:

- Identification of training needs:
 - What kind of training is required?
 - When will the training be needed?
 - How many people need to be trained?

- What is the standard of performance required of trainees following the training?
- development of the training plan and programme:
 - What are the training objectives?
 - What has to be taught – theory and practice?
 - What is the best method of teaching?
- Implementation of the training programme:
 - organising the training
 - undertaking the training
 - recording the results
 - evaluation of the results.

The need for health and safety training may be identified as an outcome of the risk assessment process, safety monitoring activities, such as safety audits, and the investigation of accidents, ill-health and incidents.



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Construction (Health, Safety and Welfare) Regulations 1996

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002

Health and Safety (Display Screen Equipment) Regulations 1992

Ionising Radiations Regulations 1999

Management of Health and Safety at Work Regulations 1999

Personal Protective Equipment at Work Regulations 1992

Provision and Use of Work Equipment Regulations 1998

Health records

The maintenance of individual health records is a standard feature of occupational health practice. The purpose of such records is to:

- assist occupational health practitioners to provide efficient health surveillance, emergency attention, health care and continuity of such care;

- enable practitioners to undertake epidemiological studies to identify general health and safety risks and trends arising amongst employees and to identify problem areas and specific risks;
- establish, maintain and keep up-to-date written information relating to people, hazards and current monitoring activities; and
- facilitate assessment of problems, decision making, recommendations and the writing of reports.

1(c) Principal regulations

Control of Asbestos at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002

Ionising Radiations Regulations 1999

Health surveillance

Health surveillance implies the specific health examination at a pre-determined frequency of those at risk of developing further ill-health or disability and those actually or potentially at risk by virtue of the type of work they undertake during their employment.

A risk assessment will identify the circumstances in which health surveillance is required by specific health and safety regulations, such as the Control of Substances Hazardous to Health (COSHH) Regulations. Health surveillance should also be introduced where a risk assessment shows that the following criteria apply:

- (a) there is an identifiable disease or adverse health condition related to the work concerned;
- (b) valid techniques are available to detect indications of the disease or condition;
- (c) there is a reasonable likelihood that the disease or condition may occur under the particular conditions of work; and
- (d) surveillance is likely to further the protection of the health and safety of the employees to be covered.

The appropriate level, frequency and procedure of health surveillance should be determined by a competent person (e.g. occupational health nurse) acting within the limits of their training and experience. This could be determined on the basis of suitable general guidance (e.g. regarding skin inspection for dermal effects) but, in certain circumstances, this may require the assistance of a qualified medical practitioner. The minimum requirement for health surveillance is keeping a health record. Once it is decided that health surveillance is appropriate, it should be maintained through an employee's employment unless the risk to which the worker is exposed and associated health effects are rare and short term.

[ACOP to the Management of Health and Safety at Work Regulations]



1(c) Principal regulations

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Noise at Work Regulations 2005

Control of Substances Hazardous to Health Regulations 2002

Control of Vibration at Work Regulations 2005

Health and Safety (display Screen Equipment) Regulations 1992

Ionising Radiations Regulations 1999

Management of Health and Safety at Work Regulations 1999



3(b) Forms

Occupational Health

(a) *Pre-employment health questionnaire*

(b) *Health questionnaire*

(c) *Food handler's clearance certificate*

(d) *Fitness certificate*



Appendix B: Documentation and record keeping requirements

Information and instruction

The provision of health and safety information and instruction for employees is a common requirement of health and safety legislation, including the Health and Safety at Work etc. Act 1974 and regulations, such as the Health and Safety (Display Screen Equipment) Regulations 1992, the Personal Protective Equipment at Work Regulations 1992 and the Noise at Work Regulations 1989.



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002

Health and Safety (Display Screen Equipment) Regulations 1992

Ionising Radiations Regulations 1999

Management of Health and Safety at Work Regulations 1999

Noise at Work Regulations 1999

Personal Protective Equipment at Work Regulations 1992

Safety Representatives and Safety Committees Regulations 1977

International Loss Control Institute loss causation model

The International Loss Control Institute (ILCI) views the safety management process as being concerned, fundamentally, with the prevention of loss.

Lack of health and safety control within an organisation, such as a failure to undertake planned inspections and set down organisational rules, creates the basic causes for accidents and occupational ill-health. These basic causes may be associated with both personal factors, such as stress, and job factors, such as inadequate maintenance of work equipment.

The basic causes contribute to the immediate, or direct, causes associated with sub-standard practices and conditions. Sub-standard practices include, for example, the removal of safety devices from machinery. Sub-standard conditions, on the other hand, may be associated with excessive noise or inadequate ventilation in a workplace.

In turn, the immediate or direct causes create the incident, such as a major injury arising from a fall or contact with dangerous parts of machinery.

1. Lack of control

Failure to maintain compliance with adequate standards for:

- Leadership and administration
- Management training
- Planned inspections
- Job task analysis and procedures
- Job and task observations
- Job task observations
- Emergency preparedness
- Organisational rules
- Accident and incident investigations
- Accident and incident analysis
- Personal protective equipment
- Health control and services
- Programme evaluations systems
- Purchasing and engineering systems
- Personal communications
- Group meetings
- General promotion
- Hiring and placement
- Records and reports
- Off-the-job safety

↓
CREATES

2. Basic causes

Personal factors

- Inadequate capability
 - physical/physiological
 - mental/psychological
- Lack of knowledge
- Lack of skill
- Stress
 - physical/physiological
 - mental/psychological

Job factors

- Inadequate leadership or supervision
- Inadequate engineering
- Inadequate purchasing
- Inadequate maintenance
- Inadequate tools, equipment, materials
- Inadequate work standards
- Abuse and misuse
- Wear and tear



LEADING TO:



3. Immediate causes

Substandard practices

- Operating equipment without authority
- Failure to warn
- Failure to secure
- Operating at improper speed
- Making safety devices inoperable
- Removing safety devices
- Using defective equipment
- Failing to use personal protective equipment properly
- Improper loading
- Improper placement
- Improper lifting
- Improper position for task
- Servicing equipment in operation
- Horseplay
- Under influence of alcohol/drugs

Substandard conditions

- Inadequate guards or barriers
- Inadequate or improper protective equipment
- Defective tools, equipment, materials
- Congestion or restricted action
- Inadequate warning system
- Fire and explosion hazards
- Poor housekeeping, disorder
- Noise exposure
- Radiation exposure
- Temperature extremes
- Inadequate or excess illumination
- Inadequate ventilation

CAUSING:



4. Incident

Contacts

- | | |
|--|--|
| <ul style="list-style-type: none"> • Struck against • Fall to lower level • Caught in • Caught between • Overstress, overexertion, overload | <ul style="list-style-type: none"> • Struck by • Fall on same level • Caught on • Contact with |
|--|--|

WITH THE RESULTING:



5. Loss

Personal harm

- Major injury or illness
- Serious injury or illness
- Minor injury or illness

Property Damage

- Catastrophic
- Major
- Serious
- Minor

Process loss

- Catastrophic
- Major
- Serious
- Minor

The ILCI loss causation model

The incident results in loss, both to the accident victim and to the organisation.

The theory behind this model is that, by concentrating on good standards of health and safety management and control, the indirect and direct causes of accidents can be greatly reduced leading to a comparative reduction in loss-producing incidents. Particular attention must be paid to people in terms of their individual skills and knowledge, the jobs they carry out, working practices and work conditions.

ISO 14001: Environmental Management Systems

This Standard provides a model for health and safety management systems. Implementation of the Standard takes place in a number of clearly defined stages, thus:

1. Initial status review

This stage entails a review and assessment of the current 'state of play' with regard to health and safety management systems. Proactive factors to be considered include the presence of written safe systems of work, joint consultation procedures, an integrated approach to risk assessment, documented planned preventive maintenance systems and a procedure for providing information, instruction and training at all levels within the organisation.

Reactive management systems include those for accident and incident reporting, recording and investigation, accident and incident costing and means for the provision of feedback following the investigation of accidents, incidents and occupational ill-health.

2. Occupational health and safety policy

A review of the current Statement of Health and Safety Policy and other sub-policies covering, for example, stress at work,

contractors' activities and the provision of personal protective equipment, takes place at this stage.

3. Planning

Feedback from the initial status review and assessment of the effectiveness of the Statement of Health and Safety Policy will identify areas for planning for future actions. This stage may entail the establishment of management systems to cover:

- (a) future safety monitoring operations;
- (b) the preparation of rules for the safe conduct of project work (contractors' regulations)
- (c) systems for raising the awareness of employees;
- (d) the provision of information, instruction and training;
- (e) planned preventive maintenance;
- (f) health surveillance of specific groups of employees; and
- (g) a review of risk assessment procedures.

4. Implementation and operation

Once the strategies and objectives for future health and safety activities have been established at the planning stage, the process of implementing these objectives must be put into operation, perhaps on a phased basis. The written objectives should specify:

- (a) the actual objective;
- (b) the manager responsible for achieving this objective;
- (c) the financial arrangements where appropriate;
- (d) the criteria for assessing successful achievement of the objective; and
- (e) a date for completion of the objective.

5. Checking and corrective action

Procedures should be established for ensuring that agreed objectives are being achieved within the timescale allocated and for ensuring specific corrective action is taken in the event of failure or incomplete fulfilment of the objective.

6. Management review

Any phased programme of improvement must be subject to regular management review. The timescale for review, and the management responsible for same, should be established before the implementation stage. In most cases a review team would assess the success in achievement of the pre-determined objectives and make recommendations for future action, including any safety monitoring arrangements necessary.

7. Continual improvement

As a result of undertaking this phased approach to health and safety management, there should be continual improvement in health and safety performance including:

- (a) improved attitudes and awareness on the part of management and employees;
- (b) greater commitment to, and recognition of, the need to incorporate health and safety in management procedures;
- (c) regular revisions of policy based on feedback from reviews;
- (d) a developing health and safety culture within the organisation;
- (e) improved systems for ensuring corrective action is dealt with quickly; and
- (f) ease of integration of environmental management systems with health and safety management systems.

Joint consultation

Joint consultation is an important means of improving motivation of employees and others by enabling them to participate in planning work and setting objectives. The process of consulting on health and safety issues, procedures and systems may take place through discussions by an employer with trade-union-appointed safety representatives, non-trade-union representatives of employee safety, and through the operation of a safety committee.

There is an absolute duty on an employer under the Health and Safety at Work etc. Act 1974 (Section 2(6)) to consult with safety representatives with a view to the making and maintenance of arrangements which will enable him and his employees to co-operate 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.

Further legal and practical requirements relating to joint consultation are laid down in the Safety Representatives and Safety Committees Regulations 1977 and the Health and Safety (Consultation with Employees) Regulations 1996, together with accompanying ACOP and HSE Guidance.



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Health and Safety (Consultation with Employees) Regulations 1996

Safety Representatives and Safety Committees Regulations 1977



1(d) Approved codes of practice

Safety representatives and safety committees

Local rules

Under the Ionising Radiations Regulations, every radiation employer (as defined) shall, in respect of any controlled area and supervised area, make and set down in writing such local rules as are appropriate to the radiation risk and the nature of the operations undertaken in that area (Regulation 17).

A radiation employer shall take all reasonable steps to ensure local rules are observed and brought to the attention of appropriate employees and other persons.

The radiation employer shall appoint one or more radiation protection supervisors to ensure compliance with the Regulations in respect of any area made subject to local rules.

**1(c) Principal regulations***Ionising Radiations Regulations 1999***1(d) Approved codes of practice***Work with ionising radiation*

Major incidents

A major incident is one that may:

- affect several locations or departments within a workplace, e.g. a major escalating fire;
- endanger the surrounding communities, such as a pollution incident;
- be classed as a fatal or major injury accident, or a scheduled dangerous occurrence, under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations; or
- result in adverse publicity for an organisation with ensuing loss of public confidence and market place image, e.g. a product recall.

Organisations need to have a formal major incident policy together with established procedures covering the principal stages of an emergency situation. A typical emergency procedure covers the following stages:

- preliminary action;
- action when emergency is imminent;
- action during the emergency;
- ending the emergency.

Implementation of the emergency procedure would normally incorporate:

- liaison with external authorities, such as the HSE, fire authority, local authority;
- the appointment of an emergency controller and establishment of an emergency control centre;
- nomination of senior managers responsible for initiating the procedure;
- notification to local authorities;
- call-out of designated competent persons, e.g. engineers, health and safety personnel;

- immediate action on site (by supervisors and employees);
- evacuation procedure and nomination of competent persons to oversee same;
- access to records of employees;
- external communication arrangements;
- public relations;
- catering and temporary shelter arrangements;
- contingency arrangements covering repairs to buildings, etc.; and
- training exercises involving external services, such as the fire brigade and ambulance service.



1(c) Principal regulations

Ionising Radiations Regulations 1999

Management of Health and Safety at Work Regulations 1999



1(d) Approved codes of practice

Management of health and safety at work

*Prevention of fire and explosion and emergency response
on offshore installations*

Work with ionising radiation

Method statements

This is a form of written safe system of work commonly used in construction activities where work with a foreseeably high hazard content is to be undertaken. The system of work may be agreed between an occupier and a principal contractor or between a principal contractor and sub-contractor.

A method statement should specify, on a stage-by-stage basis, the operations to be undertaken and the precautions necessary to protect all persons on site, members of the public and local residents. It may incorporate information and specific requirements stipulated by, for example, health and safety specialists, enforcement officers, site surveyors, police and manufacturers of articles and substances used in the work. In certain cases it may identify training needs or the use of specifically trained operators.

Typical situations requiring the production of a method statement are:

- the use of substances hazardous to health;
- the use of explosives;
- lifting operations on site;
- potential fire hazard situations;
- where electrical hazards may arise;
- the use of sealed sources of radiation;
- excavation adjacent to existing buildings;
- demolition activities; and
- work involving asbestos removal or stripping.

A method statement should incorporate the following elements:

- the technique(s) to be used for the work;
- access provisions;
- procedures for safeguarding existing locations;
- structural stability precautions;
- procedures for ensuring the safety of others, including members of the public and local residents;
- health precautions, including the use of certain forms of personal protective equipment, such as respiratory protection;
- the plant and equipment to be used;
- procedures for the prevention of area pollution;
- procedures for segregating certain areas;
- procedures for disposal of hazardous substances; and
- procedures for ensuring compliance with specific Regulations, such as the Control of Lead at Work Regulations, Control of Asbestos at Work Regulations.



1(c) Principal regulations

Construction (Design and Management) Regulations 1994
Construction (Health, Safety and Welfare) Regulations 1996



1(d) Approved codes of practice

Managing construction for health and safety



1(e) HSE guidance notes

Health and safety in construction [HS(G)150]

Management oversight and risk tree (MORT)

MORT is defined as 'a systemic approach to the management of risks in an organisation'. It was developed by the United States Department of Energy during the period 1978–83, and incorporates methods aimed at increasing reliability, assessing the risks, controlling losses and allocating resources effectively.

The MORT philosophy is summarised under the following four headings.

Management takes risks of many kinds

Specifically, these risks are classified in the areas of:

- (a) product quantity and quality;
- (b) cost;
- (c) schedule;
- (d) environment, health and safety.

Risks in one area affect operations in other areas

Management's job may be viewed as one of balancing risks. For instance, to focus only on safety and environmental issues would increase the risk of losses from deficiencies, schedule delays and costs.

Risks should be made explicit where practicable

Since management must take risks, it should know the potential consequences of those risks.

Risk management tools should be flexible enough to suit a variety of diverse situations

While some analytical tools are needed for complex situations, other situations require simpler and quicker approaches. The MORT system is designed to be applied to all of an organisation's risk management concerns, from simple to complex.

The MORT process

The acronym, MORT, carries two primary meanings:

- (a) the MORT 'tree' or logic diagram, which organises risk, loss and safety programme elements and is used as a master worksheet for accident investigations and programme evaluations; and
- (b) the total safety programme, seen as a sub-system to the major management system of an organisation.

The MORT process includes four main analytical tools as follows.

Change analysis

This is based on the Kepner-Tregoe method of rational decision-making. Change analysis compares a problem-free situation with a problem (accident) situation in order to isolate causes and effects of change. It is especially useful when the decision-maker needs a quick analysis, when the cause is obscure, and when well-behaved personnel behave differently from past situations, as with the Three Mile Island incident.

Energy trace and barrier analysis (ETBA)

ETBA is based on the notion that energy is necessary to do work, that energy must be controlled, and that uncontrolled energy flowing in the absence of adequate barriers can cause accidents. The simple 'energy-barrier-targets' concept is expanded with the details of specific situations to answer the question '*What happened?*' in an accident. ETBA may be performed very quickly or applied meticulously as time permits.

MORT tree analysis

This is the third and most complex tool, combining principles from the fields of management and safety. It uses fault tree methodology with a view to assisting the investigator to ascertain what happened and why it happened. The MORT tree organises over 1500 basic events (causes) leading to 98 generic events (problems). Both specific control factors and management system factors are analysed for their contributions to the accident. People, procedures and hardware are considered separately, and then together, as key system safety elements.

Positive (success) tree design

This technique reverses the logic of fault tree analysis. In positive tree design, a system for successful operation is comprehensively and logically laid out. The positive tree is an excellent planning and assessment tool because it shows all that must be performed and the proper sequencing of events needed to accomplish an objective.

Objectives of the MORT technique

MORT is, fundamentally, an analytical technique or procedure to determine the potential for downgrading incidents in situations. It places special emphasis on the part that management oversight plays in allowing untoward or adverse events to occur. The MORT system is designed to:

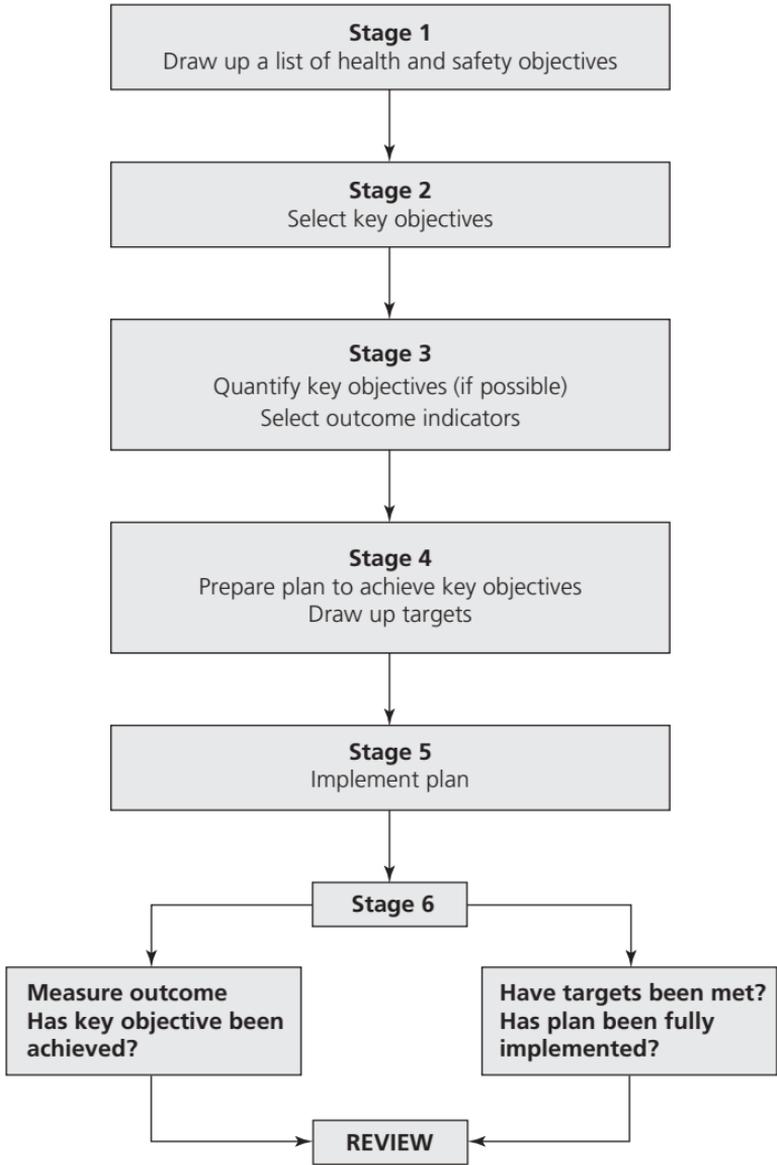
- (a) result in a reduction in oversights, whether by omission or commission, that could lead to downgrading incidents if they are not corrected;
- (b) determine the order of risks and refer them to the proper organisational level for corrective action;
- (c) ensure best allocation and use of resources to organise efforts to prevent or reduce the number and severity of adverse incidents.

OHSAS 18001: A Pro-active Approach to Health and Safety Management

This standard specifies a staged approach for developing and implementing a plan, incorporating key stages (Refer to Flowchart given in the next page).

Planned preventive maintenance

Under the Management of Health and Safety at Work Regulations there is an implied duty to manage those workplaces and



OHSAS 18001: Key stages

The above flowchart covers both the planning and implementation stages to indicate the complete process. Planning involves Stages 1 to 4.

activities which could result in the creation of risks. More specifically, the duty on employers to maintain the workplace and work equipment are incorporated in regulations as follows.

Workplace (Health, Safety and Welfare) Regulations 1992

Regulation 5 – Maintenance of workplace, and of equipment, devices and systems

The workplace and the equipment, devices and systems to which this regulation applies shall be maintained (including cleaned as appropriate) in an efficient state, in efficient working order and in good repair.

Where appropriate, the equipment, devices and systems to which this regulation applies shall be subject to a suitable system of maintenance.

The equipment, devices and systems to which this regulation applies are:

- (a) equipment and devices a fault in which is liable to result in a failure to comply with any of these regulations; and
- (b) mechanical ventilation systems provided pursuant to Regulation 6 (whether or not they include equipment or devices within sub-paragraph (a) of this paragraph).

Provision and Use of Work Equipment Regulations 1998

Regulation 5 – Maintenance

Every employer shall ensure that work equipment is maintained in an efficient state, in efficient working order and in good repair.

Every employer shall ensure that where any machinery has a maintenance log, the log is kept up to date.

Features of a planned preventive maintenance system

A formally written system should incorporate the following elements:

- the structural item, area, system e.g. floor surface, ventilation system, device such as a safety device on a machine, or item of machinery to be maintained;
- the maintenance procedure to be followed;
- the frequency of maintenance;
- individual management responsibility for ensuring the maintenance procedure is implemented; and
- specific precautions necessary, e.g. operation of a permit-to-work system, isolation of the area, display of signs and notices, and restriction of certain work to designated employees who have been trained in the maintenance procedure.

A planned preventive maintenance system should be produced in tabular form incorporating the above elements. Management should be able to assess, at any point in time, progress is otherwise in the implementation of the system.



1(c) Principal regulations

Provision and Use of Work Equipment Regulations 1998
Workplace (Health, Safety and Welfare) Regulations 1992



1(d) Approved codes of practice

Safe use of work equipment
Safe use of power presses
Safe use of woodworking machinery

Quality systems audit (QSA)

This formal audit system follows the principles of the International Standards Organisation for Quality Systems Auditing (ISO 19011). Evidence of compliance is gained by way of examination of documentation, the questioning of employees at all levels, and observation of physical conditions at the workplace.

QSA is divided into five main sections and eleven sub-sections, corresponding to the structure of the HSE Guidance Note

HS(G)65 *Successful health and safety management*. QSA takes a structured approach to examining an organisation's health and safety management system and includes all the elements of OHSAS 18001 (see above). Guidance for auditors is incorporated in the audit workbook for the system.

Scoring

QSA uses an 'all or nothing' approach, that is, all the points can be awarded in respect of a particular question or none at all, in the later case being directed at encouraging improvement in performance. Non-applicable question scores can be deducted from the total potential.

Award system

There is an award system based on evaluation of all sub-sections of the audit in all cases, consisting of five possible levels based on the minimum sub-section percentage score. The lower number of audit sections and sub-sections under QSA allows the use of the 'radar chart', a powerful mapping tool for demonstrating at a glance the strengths and weaknesses of the organisation's health and safety management system.

Training

Formal training is necessary for people using the system, providing the options for 'internal' audits using the organisation's own personnel or 'external' audits using the owners of the audit system. In the case of QSA, the system is owned by the Royal Society for the Prevention of Accidents (RoSPA).

Risk assessment

Risk assessment is the principal feature of all modern protective legislation – health and safety, food safety and environmental protection.

The Management of Health and Safety at Work Regulations place an absolute duty on every employer to make a suitable and sufficient assessment of:

- (a) the risks to the health and safety of employees to which they are exposed whilst at work; and
- (b) the risks to the health and safety of persons not in their employment arising out of or in connection with the conduct by him of his undertaking;

for the purpose of identifying the measures he needs to take to comply with the requirements and prohibitions imposed upon him by or under the relevant statutory provisions.

A 'suitable and sufficient risk assessment' should:

- (a) identify the significant risks arising out of the work;
- (b) enable the employer to identify and prioritise the measures that need to be taken to comply with the relevant statutory provisions; and
- (c) be appropriate to the nature of the work and such that it remains in force for a reasonable period of time.

Further information on risk assessment is incorporated in Regulation 3 of the regulations and the ACOP to same.



1(c) Principal regulations

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Noise at Work Regulations 2005

Control of Substances Hazardous to Health Regulations 2002

Control of Vibration at Work Regulations 2005

Dangerous Substances and Explosive Atmospheres Regulations 2002

Health and Safety (Display Screen Equipment) Regulations 1992

Ionising Radiations Regulations 1999

Management of Health and Safety at Work Regulations 1999

Manual Handling Operations Regulations 1992

Personal Protective Equipment at Work Regulations 1992

Work at Height Regulations 2005

Regulatory Reform (Fire Safety) Order 2005

**1(d) Approved codes of practice**

Control of asbestos at work

Control of lead at work

The management of asbestos in non-domestic premises

Control of substances hazardous to health

Dangerous substances and explosive atmospheres

Work with ionising radiation

Management of health and safety at work

**1(e) HSE guidance notes**

Assessing and managing risks at work from skin exposure to chemical agents

A step-by-step guide to COSHH assessment

Five steps to risk assessment

Risk management

Risk management is variously defined as:

- the minimisation of the adverse effects of pure and speculative risks within a business;
- the identification, measurement and economic control of the risks that threaten the assets and earnings of a business or other enterprise;
- the identification and evaluation of risk and the determination of the best financial solution for coping with the major and minor threats to a company's earnings and performance;
- a technique for coping with the effects of change.

Risk management techniques have the principal objective of producing savings in insurance premiums by first defining and then minimising areas of industrial and other risk. It seeks not to discredit insurance arrangements but to promote the concept of insuring only what is necessary in terms of risk. On this basis the manageable risks are identified, measured and either eliminated or controlled, and the financing of the remaining or residual risks, normally through insurance, takes place at a later stage.

Categories of risk

There are two main areas of risk, namely catastrophic risk, which demands insurance, and risks associated with wastage of the organisation's assets. The latter is where the scope of self-insurance and diminution of risk is most evident, and is why organisations appoint risk managers, in some cases establishing risk management subsidiaries.

Risks may be of a pure or speculative nature. *Pure risks* can only result in loss to the organisation. *Speculative risks*, on the other hand, may result in either gain or loss. Within the context of a risk management programme, risk may be defined as 'the chance of loss', and the programme is therefore geared to safeguarding the organisation's assets, namely manpower, materials, machinery, methods, manufactured goods and money.

The risk management process

This takes place in a series of stages:

- (a) identification of the exposure to risk, such as that arising from fire, storm and flood, accidents, human error, theft or fraud, breach of legislation, etc.;
- (b) analysis and evaluation of the identified exposures to risk;
- (c) risk control, using a range of protective measures; and
- (d) financing of the risk at the lowest cost.

Risk control strategies

Risk avoidance	Risk retention	Risk transfer
This strategy involves a conscious decision on the part of the organisation to avoid completely a risk by discontinuing the operation or circumstances that produces the risk.	In this case, the risk is retained within the organisation where any consequent loss is financed by that organisation.	This is the legal assignment of the costs of certain potential losses from one party to another, e.g. from a company to an insurance company.

Safe systems of work

This may be defined as the integration of people, machinery and materials in a safe and healthy environment and workplace to produce and maintain an acceptable standard of safety.

Requirements for a safe system of work include:

- a safe workplace layout with adequate space;
- a safe means of access to and egress from the working area;
- a correct sequence of operations;
- analysis of jobs, using techniques such as job analysis and job safety analysis;
- identification of safe procedures, both routine and emergency;
- a safe and healthy working environment in terms of temperature, lighting, ventilation and humidity, noise and vibration control, and hazardous airborne contaminants; and
- the provision of information, instruction, training and supervision for employees operating the system of work.



1(b) Statutes

Health and Safety at Work etc. Act 1974

Safety monitoring systems

Active monitoring of the workplace and work activities should be undertaken through a range of techniques. These include the following.

Safety inspections

A scheduled or unscheduled inspection of a workplace to examine current levels of safety performance, working practices and compliance with legal requirements at a particular point in time. One of the principal objectives is the identification of hazards

and the making of recommendations, short, medium and long-term, to prevent or control exposure to these hazards.

Safety audits

The systematic measurement and validation of an organisation's management of its health and safety programme against a series of specific and attainable standards (Royal Society for the Prevention of Accidents).

A safety audit subjects each area of an organisation's activities to a systematic critical examination with the principal objective of minimising loss. It is an on-going process aimed at ensuring effective health and safety management.

Safety surveys

A detailed examination of a number of critical areas of operation or an in-depth study of the whole health and safety operation of premises.

Safety sampling exercises

An organised system of regular random sampling, the purpose of which is to obtain a measure of safety attitudes and possible sources of accidents by the systematic recording of hazard situations observed during inspections made along a predetermined route in a workplace.

Hazard and operability studies (HAZOPS)

These studies incorporate the application of formal critical examination to the process and engineering intentions for new facilities, such as production processes. The aim of HAZOPS is to assess the hazard potential arising from incorrect operation of each item of equipment and the consequential effects on the facility as a whole. Remedial action is then usually possible at a very early stage of the project with maximum effectiveness and minimum cost.



1(e) HSE guidance notes

Successful health and safety management

Safety signs

A 'safety sign' is defined as a sign that gives a message about health and safety by a combination of geometric form, safety colour and symbol or text, or both. The Safety Signs Regulations require that any sign displayed in a workplace must comply with the specification of signs contained in BS 5378: Part 1: 1980 *Safety Signs and Colours: Specifications for Colour and Design*. There are four basic categories of safety sign.

Prohibition

These signs indicate that certain behaviour is prohibited or must stop immediately, for example, smoking in a non-smoking area. These signs are recognised by a red circle with a cross running from top left to bottom right on a white background. Any symbol is reproduced in black within the circle.

Warning

These are signs which give warning or notice of a hazard. The signs are black outlined triangles filled in by the safety colour, yellow. The symbol or text is in black. The combination of black and yellow identifies the need for caution.

Mandatory

These signs indicate that a specific course of action is required, for example, ear protection must be worn. The safety colour is blue with the symbol or text in white. The sign is circular in shape.

Safe condition

The signs provide information about safe conditions. The signs are rectangular or square in shape, coloured green with white text or symbol.

Health and Safety (Safety Signs and Signals) Regulations 1996

These regulations cover various means of communicating health and safety information, including the use of illuminated signs, hand and acoustic signals (e.g. fire alarms), spoken communication and the marking of pipework containing dangerous substances.

Employers must use a safety sign where a risk cannot be adequately avoided or controlled by other means. The regulations require, where necessary, the use of road traffic signs within workplaces to regulate road traffic. Employers are required, firstly, to maintain the safety signs which are provided by them and, secondly, explain unfamiliar signs to their employees and tell them what they need to do when they see a safety sign.

The regulations also deal with fire safety signs including the need for exit signs to incorporate the Running Man symbol.



1(d) HSE guidance notes

Safety signs and signals: Health and Safety (Safety Signs and Signals) Regulations 1996

Statements of health and safety policy

As stated in Part 1: Legal Background, a Statement of Health and Safety Policy incorporates three main elements.

<i>Part 1: General statement of intent</i>	<i>Part 2: Organisation</i>	<i>Part 3: Arrangements</i>
<p>This part outlines the organisation's philosophy and objectives with respect to health and safety and should incorporate the duties of employers specified in Section 2 of the Health and Safety at Work etc. Act 1974.</p>	<p>It is useful to incorporate an organisational chart, or description of the chain of command, from the chief executive, managing director, senior partner, etc. downwards. This part should indicate clearly individual levels of responsibility and how accountability is fixed, the system for monitoring implementation of the policy and the relationship of the safety adviser with senior management.</p>	<p>Part 3 deals with the management systems and procedures which assist in overall policy implementation. It covers a wide range of matters including:</p>

- the arrangements for risk assessment
- the arrangements for safe systems of work, including permit-to-work systems
- safety monitoring
- accident reporting, recording and investigation
- provision of information, instruction, training and supervision
- consultation with safety representatives and employees generally
- control of exposure to substances hazardous to health, noise, radiation, etc
- emergency procedures
- occupational health procedures
- fire safety arrangements, etc.

Appendices

It is common to incorporate a series of appendices such as:

- relevant statutory provisions applying to the organisation
- duties and responsibilities of all levels, plus the responsibilities of the safety adviser
- statements of policy on:
 - smoking at work
 - stress at work
 - health and safety training etc.
- the hazards arising and the precautions necessary on the part of all persons at work
- sources of health and safety information
- role and function of the safety committee.



1(b) The principal statutes

Health and Safety at Work etc. Act 1974



1(e) HSE guidance notes

Writing your health and safety policy statement: a guide to preparing a safety policy for a small business

Successful health and safety management [HS(G)65]

This HSE publication specifies elements of successful health and safety management within five main areas.

Policy

Organisations which are successful in achieving high standards of health and safety have health and safety policies which contribute to their business performance, while meeting their responsibilities to people and the environment in a way which fulfils both the spirit and the letter of the law. In this way they satisfy the expectations of shareholders, employees, customers and society at large. Their policies are cost-effective and aimed at achieving the preservation and development of physical and human resources and reductions in financial losses and liabilities. Their health and safety policies influence all their activities and decisions, including those to do with the selection of resources and information, the design and operation of working systems, the design and delivery of products and services, and the control and disposal of waste.



Organising

Organisations which achieve high health and safety standards are structured and operated so as to put their health and safety policies into effective practice. This is helped by the creation of a positive culture which secures involvement and participation at all levels. It is sustained by effective communication and the promotion of competence which enables all employees to make a responsible and informed contribution to the health and safety effort. The visible and active leadership of senior managers is necessary to develop and maintain a culture supportive of health and safety management. Their aim is not simply to avoid accidents, but to motivate and empower people to work safely. The visions, values and beliefs of leaders become the shared 'common knowledge' of all.



Planning

These successful organisations adopt a planned and systematic approach to policy implementation. Their aim is to minimise the risks created by work activities, products and services. They use risk assessment methods to decide priorities and set objectives for hazard elimination and risk reduction. Performance standards are established and performance is measured against them. Specific actions needed to promote a positive health and safety culture and to eliminate and control risks are identified. Wherever possible, risks are eliminated by the careful selection and

design of facilities, equipment and processes or minimised by the use of physical control measures. Where this is not possible, systems of work and personal protective equipment are used to control risks.



Measuring performance

Health and safety performance in organisations which manage health and safety successfully is measured against pre-determined standards. This reveals when and where action is needed to improve performance. The success of action taken to control risks is assessed through active self-monitoring involving a range of techniques. This includes an examination of both hardware (premises, plant and substances) and software (people, procedures and systems), including individual behaviour. Failures of control are assessed through reactive monitoring which requires the thorough investigation of accidents, ill-health and incidents with the potential to cause harm or loss. In both active and reactive monitoring the objectives are not only to determine the immediate causes of sub-standard performance but, more importantly, to identify the underlying causes and the implications for the design and operation of the health and safety management systems.



Auditing and reviewing performance

Learning from **all** relevant experience and applying the lessons learned are important elements in effective health and safety management. This needs to be done systematically through regular reviews of performance based on data both from monitoring activities and from independent audits of the whole health and safety management system. These form the basis of self-regulation and for securing compliance with Sections 2 to 6 of the Health and Safety at Work etc. Act 1974. Commitment to continuous improvement involves the constant development of policies, approaches to implementation and techniques of risk control. Organisations which achieve high standards of health and safety assess their health and safety performance by internal reference to key performance indicators and by external comparison with the performance of business competitors. They often also record and account for their performance in their annual reports.



1(d) Approved code of practice

Management of health and safety at work



1(e) HSE guidance notes

Successful health and safety management



3(a) Tables and figures

Key elements of successful health and safety management.

Technique for human error rate probability (THERP)

Many accidents are associated with human error. THERP is a technique for predicting the potential for human error in a work activity. It evaluates quantitatively the contribution of the human error element in the development of an untoward incident.

The technique uses human behaviour as the basic unit of evaluation. It involves the concept of a basic error rate that is relatively consistent between tasks requiring similar human performance elements in different situations. Basic error rates are assessed in terms of contributions to specific systems failures.

The methodology of THERP entails:

- (a) selecting the system failure;
- (b) identifying all behaviour elements;
- (c) estimating the probability of human error; and
- (d) computing the probabilities as to which specific human error will produce the system failure.

Following classification of probable errors, specific corrective actions are introduced to reduce the likelihood of error.

The major weakness in the use of the THERP technique, however, is the lack of sufficient error rate data.

Total loss control

Total loss control is a management system developed in the 1960s by Frank Bird. It is defined as a programme designed to reduce or eliminate all accidents which downgrade the system and which result in wastage of an organisation's assets. An organisation's assets are:

Manpower – Materials – Machinery – Manufactured goods – Money (The five 'Ms')

Within the total loss control concept a number of definitions are important.

Incident

An undesired event that could, or does, result in loss

or

An undesired event that could, or does, downgrade the efficiency of the business operation.

Accident

An undesired event that results in physical harm or damage to property. It is usually the result of contact with a source of energy (i.e. kinetic, electrical, thermal, ionising, non-ionising radiation, etc.) above the threshold limit of the body or structure.

Loss control

An intentional management action directed at the prevention, reduction or elimination of the pure (non-speculative) risks of business.

Total loss control

The application of professional management techniques and skills through those programme activities (directed at risk avoidance, loss prevention and loss reduction) specifically intended to minimise loss resulting from the pure (non-speculative) risks of business.

Total loss control programmes

Total loss control is commonly run as a programme over a period of, for example, five years. The various stages are outlined below.

Injury prevention

This stage is concerned with the humanitarian and, to some extent, legal aspects of employee safety and employees' compensation costs. It normally incorporates a range of features, such as machinery safety, joint consultation, safety training, cleaning and housekeeping, safety rules, etc.

Damage control

This part of the programme covers the control of accidents which cause damage to property and plant and which might, conceivably, cause injury. Essential elements of this stage are damage reporting, recording and costing.

Total accident control

This stage of the programme is directed at the prevention of *all* accidents resulting in personal injury and/or property damage. Three important aspects of this stage are spot checking systems, reporting by control centres and health and safety audits.

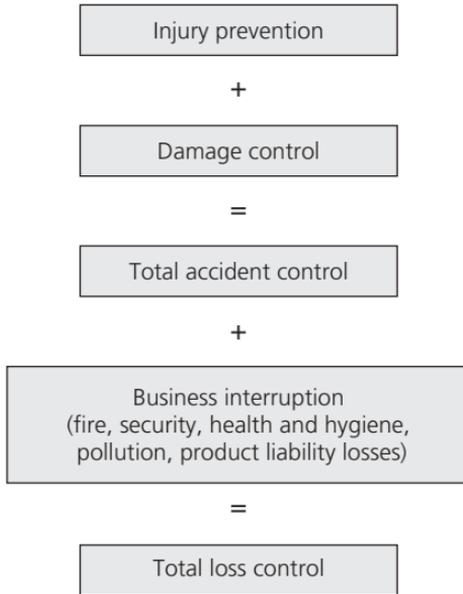
Business interruption

This entails the incorporation in the programme of controls over all situations and influences which downgrade the system and result in interruption of the business activities, e.g. fire prevention, security procedures, product liability, pollution prevention. Business interruption results in lost money, e.g. operating expenses, lost time, reduced production and lost sales.

Total loss control

This is the control of all insured and uninsured costs arising from any incidents which downgrade the system.

The various stages of total loss control are shown below.



Stages of total loss control.

2(b)

Hazard checklists

This section incorporates a number of checklists which may be used in:

- safety monitoring activities;
- investigation of incidents; and
- as part of the risk assessment process.

Construction activities

1. Health and welfare	Yes	No
1.1 Are first aid boxes provided, maintained and readily available?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Are arrangements for calling an ambulance in place?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Is a responsible person appointed to take charge of situations where a first aider is not available?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Is a stretcher readily available?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Has a foul weather shelter been provided?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Is a mess room provided?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Are adequate and suitable clothing storage and changing facilities provided?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Are facilities provided for heating food?	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Are sanitation arrangements (urinals, water closets) adequate?	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Are washing and showering facilities adequate?	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Are adequate facilities for rest provided?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Construction activities (*Continued*)

	Yes	No
1.12 Is a suitable supply of drinking water provided and suitably marked?	<input type="checkbox"/>	<input type="checkbox"/>
1.13 Is there a formal emergency procedure in place?	<input type="checkbox"/>	<input type="checkbox"/>
2. Environmental factors		
2.1 Is safe access and egress provided to the site?	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Is a good standard of housekeeping and cleanliness maintained?	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Is site lighting, including emergency lighting, provided and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Is there adequate segregation from non-construction activities?	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Are adequate measures taken to control emissions of dust, fumes, etc?	<input type="checkbox"/>	<input type="checkbox"/>
2.6 Is effective ventilation provided in working areas?	<input type="checkbox"/>	<input type="checkbox"/>
2.7 Are ventilation arrangements adequate and effective?	<input type="checkbox"/>	<input type="checkbox"/>
2.8 Is there a system for ensuring adequate temperature control in indoor workplaces?	<input type="checkbox"/>	<input type="checkbox"/>
2.9 Are suitable and sufficient lighting arrangements provided and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
2.10 Are measures taken to prevent adverse lighting conditions?	<input type="checkbox"/>	<input type="checkbox"/>
2.11 Is secondary lighting provided and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
2.12 Are waste storage and disposal arrangements adequate?	<input type="checkbox"/>	<input type="checkbox"/>
2.13 Are perimeter signs installed and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
3. Fire prevention and protection		
3.1 Is there adequate access for fire brigade appliances?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Construction activities (*Continued*)

	Yes	No
3.2 Is there a formal system for summoning fire brigade?	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Are huts sited in safe positions?	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Is there adequate space between huts?	<input type="checkbox"/>	<input type="checkbox"/>
3.5 Are huts of fireproof construction?	<input type="checkbox"/>	<input type="checkbox"/>
3.6 Are prohibited areas identified and suitable notices displayed?	<input type="checkbox"/>	<input type="checkbox"/>
3.7 Have specific fire risks been identified and assessed?	<input type="checkbox"/>	<input type="checkbox"/>
3.8 Are measures taken to control the use of flame-producing plant and equipment?	<input type="checkbox"/>	<input type="checkbox"/>
3.9 Are heaters in huts installed safely and heating arrangements maintained?	<input type="checkbox"/>	<input type="checkbox"/>
3.10 Are fire appliances installed at suitable locations?	<input type="checkbox"/>	<input type="checkbox"/>
3.11 Are fire detectors and alarms installed and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
3.12 Is there specific provision for the storage of flammable substances?	<input type="checkbox"/>	<input type="checkbox"/>
3.13 Are vehicle parking arrangements satisfactory from a fire protection viewpoint?	<input type="checkbox"/>	<input type="checkbox"/>
4. Storage of materials		
4.1 Are materials sited in safe areas?	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Are materials stacked safely?	<input type="checkbox"/>	<input type="checkbox"/>
4.3 Are storage huts provided and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
4.4 Are flammable materials adequately separated?	<input type="checkbox"/>	<input type="checkbox"/>
4.5 Are compressed gases stored safely in a secure compound?	<input type="checkbox"/>	<input type="checkbox"/>
4.6 Are compressed gases adequately segregated?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Construction activities (*Continued*)

	Yes	No
4.7 Are provisions for the storage of hazardous substances adequate?	<input type="checkbox"/>	<input type="checkbox"/>
4.8 Are provisions for the storage of explosives adequate?	<input type="checkbox"/>	<input type="checkbox"/>
5. Plant, machinery and hand tools		
5.1 Are:		
• lifting equipment and appliances	<input type="checkbox"/>	<input type="checkbox"/>
• woodworking machinery	<input type="checkbox"/>	<input type="checkbox"/>
• electrical equipment	<input type="checkbox"/>	<input type="checkbox"/>
• abrasive wheels	<input type="checkbox"/>	<input type="checkbox"/>
• welding equipment	<input type="checkbox"/>	<input type="checkbox"/>
• hand tools	<input type="checkbox"/>	<input type="checkbox"/>
maintained in an efficient state, in efficient working order and in good repair?	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Are formal procedures for the maintenance, examination and testing of plant and machinery in place?	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Are guarding and fencing arrangements adequate and suitably maintained?	<input type="checkbox"/>	<input type="checkbox"/>
5.4 Are measures taken to ensure that plant and machinery are of adequate construction, strength and suitability?	<input type="checkbox"/>	<input type="checkbox"/>
6. Access equipment and working places		
6.1 Is all scaffolding correctly erected?	<input type="checkbox"/>	<input type="checkbox"/>
6.2 Are all ladders in good condition, suitably placed and secured at their upper resting place?	<input type="checkbox"/>	<input type="checkbox"/>
6.3 Are all trenches and excavations maintained in a safe condition?	<input type="checkbox"/>	<input type="checkbox"/>
6.4 Are measures taken to protect employees from risks from overhead cables?	<input type="checkbox"/>	<input type="checkbox"/>
6.5 Are all working platforms suitably protected by means of a top rail, intermediate rail and toe board?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Construction activities (*Continued*)

	Yes	No
6.6 Is movable access equipment adequately maintained and moved under safe conditions?	<input type="checkbox"/>	<input type="checkbox"/>
6.7 Are adequate measures taken to prevent falls arising from work on fragile materials?	<input type="checkbox"/>	<input type="checkbox"/>
6.8 Are measures taken to prevent risks arising from falling objects?	<input type="checkbox"/>	<input type="checkbox"/>
6.9 Are adequate means provided for arresting falls?	<input type="checkbox"/>	<input type="checkbox"/>
6.10 Is personal suspension equipment suitably maintained?	<input type="checkbox"/>	<input type="checkbox"/>
6.11 Are any unstable structures identified and access to same prevented?	<input type="checkbox"/>	<input type="checkbox"/>
6.12 Have competent persons been appointed with respect to the inspection of scaffolds, excavations and personal suspension equipment?	<input type="checkbox"/>	<input type="checkbox"/>
7. Cofferdams and caissons		
7.1 Are cofferdams and caissons suitably designed and constructed?	<input type="checkbox"/>	<input type="checkbox"/>
7.2 Are the materials suitable in each case?	<input type="checkbox"/>	<input type="checkbox"/>
7.3 Is the strength and capacity of materials adequate?	<input type="checkbox"/>	<input type="checkbox"/>
7.4 Are adequate maintenance arrangements in place?	<input type="checkbox"/>	<input type="checkbox"/>
7.5 Has a competent person been appointed to undertake inspections of cofferdams and caissons?	<input type="checkbox"/>	<input type="checkbox"/>
8. Prevention of drowning		
8.1 Have the hazards associated with work over water been identified?	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Have the risks arising from drowning been assessed?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Construction activities (*Continued*)

	Yes	No
8.3 Is rescue equipment adequate and readily available for use in an emergency?	<input type="checkbox"/>	<input type="checkbox"/>
8.4 Where work entails transport over water, have the hazards been identified?	<input type="checkbox"/>	<input type="checkbox"/>
8.5 Are vessels suitable and adequately maintained?	<input type="checkbox"/>	<input type="checkbox"/>
8.6 Have flooding risks been identified and assessed?	<input type="checkbox"/>	<input type="checkbox"/>
9. Radiography and radioactive materials		
9.1 Have classified workers been identified and trained?	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Are medical supervision arrangements adequate?	<input type="checkbox"/>	<input type="checkbox"/>
9.3 Are personal dose monitoring arrangements adequate?	<input type="checkbox"/>	<input type="checkbox"/>
9.4 Are sealed sources of radiation suitably controlled?	<input type="checkbox"/>	<input type="checkbox"/>
9.5 Are personal dose records maintained?	<input type="checkbox"/>	<input type="checkbox"/>
9.6 Are personal dose meters/film badges provided and used?	<input type="checkbox"/>	<input type="checkbox"/>
9.7 Has a competent person been appointed to oversee preventive and protective measures?	<input type="checkbox"/>	<input type="checkbox"/>
10. Site transport		
10.1 Are cautionary signs and notices adequate and displayed prominently?	<input type="checkbox"/>	<input type="checkbox"/>
10.2 Are directional signs adequate and displayed prominently?	<input type="checkbox"/>	<input type="checkbox"/>
10.3 Do site layout arrangements ensure safe movement of people and vehicles?	<input type="checkbox"/>	<input type="checkbox"/>
10.4 Are authorised drivers appointed in the case of certain site vehicles?	<input type="checkbox"/>	<input type="checkbox"/>
10.5 Are lift trucks used safely?	<input type="checkbox"/>	<input type="checkbox"/>
10.6 Is mobile access equipment used safely?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Construction activities (*Continued*)

		Yes	No
10.7	Are potentially dangerous vehicles excluded from the site?	<input type="checkbox"/>	<input type="checkbox"/>
10.8	Are disciplinary measures in place in the event of unsafe driving?	<input type="checkbox"/>	<input type="checkbox"/>
10.9	Is access to and egress from site safe and adequately controlled?	<input type="checkbox"/>	<input type="checkbox"/>
10.10	Are separate parking areas provided for site employees?	<input type="checkbox"/>	<input type="checkbox"/>
10.11	Are pedestrian and vehicular traffic routes adequately segregated?	<input type="checkbox"/>	<input type="checkbox"/>
10.12	Are all traffic routes suitable for their purpose and adequately maintained?	<input type="checkbox"/>	<input type="checkbox"/>
10.13	Are traffic routes kept clear at all times?	<input type="checkbox"/>	<input type="checkbox"/>
10.14	Are the arrangements for vehicle towing safe?	<input type="checkbox"/>	<input type="checkbox"/>
10.15	Are passenger-carrying vehicles safe and adequately maintained?	<input type="checkbox"/>	<input type="checkbox"/>
10.16	Are measures taken to ensure the safe loading of vehicles?	<input type="checkbox"/>	<input type="checkbox"/>
10.17	Are measures provided to prevent overrunning?	<input type="checkbox"/>	<input type="checkbox"/>
10.18	Are emergency routes and exits clearly identified and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
11. Personal protective equipment			
11.1	Are safety helmets provided and worn at all times?	<input type="checkbox"/>	<input type="checkbox"/>
11.2	Are the following items of personal protective equipment provided and maintained:		
	• eye/face protection?	<input type="checkbox"/>	<input type="checkbox"/>
	• hand and arm protection?	<input type="checkbox"/>	<input type="checkbox"/>
	• respiratory protection?	<input type="checkbox"/>	<input type="checkbox"/>
	• leg and foot protection?	<input type="checkbox"/>	<input type="checkbox"/>
	• foul weather clothing?	<input type="checkbox"/>	<input type="checkbox"/>
	• ear protection?	<input type="checkbox"/>	<input type="checkbox"/>
	• body protection?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Construction activities (*Continued*)

	Yes	No
11.3 Is personal suspension equipment provided and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
12. Demolition		
12.1 Has a pre-demolition survey been undertaken?	<input type="checkbox"/>	<input type="checkbox"/>
12.2 Have method statements been prepared and implemented correctly?	<input type="checkbox"/>	<input type="checkbox"/>
12.3 Have all services been isolated?	<input type="checkbox"/>	<input type="checkbox"/>
12.4 Has the demolition area been segregated from the rest of the site by physical barriers?	<input type="checkbox"/>	<input type="checkbox"/>
12.5 Have fans and catching platforms been installed where necessary?	<input type="checkbox"/>	<input type="checkbox"/>
12.6 Have temporary props been installed where necessary?	<input type="checkbox"/>	<input type="checkbox"/>
12.7 Is there adequate control over pulling arrangements, use of demolition ball and pushing arrangements?	<input type="checkbox"/>	<input type="checkbox"/>
12.8 Are formal precautions in place for the use of explosives?	<input type="checkbox"/>	<input type="checkbox"/>
12.9 Have suitable measures been installed to provide protection against falling, i.e. harnesses, safety nets?	<input type="checkbox"/>	<input type="checkbox"/>
12.10 Are measures for the protection against falling items adequate?	<input type="checkbox"/>	<input type="checkbox"/>
12.11 Is access to dangerous areas adequately controlled?	<input type="checkbox"/>	<input type="checkbox"/>
12.12 Are the precautions for work over open joisting adequate?	<input type="checkbox"/>	<input type="checkbox"/>
12.13 Has the glass in windows, doors and partitions been removed prior to demolition?	<input type="checkbox"/>	<input type="checkbox"/>
12.14 Are scaffolds provided and used for manual demolition?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Construction activities (*Continued*)

	Yes	No
12.15 Have express measures been taken to prevent premature collapse?	<input type="checkbox"/>	<input type="checkbox"/>
12.16 Are drivers/operators and banksmen adequately trained?	<input type="checkbox"/>	<input type="checkbox"/>
12.17 Is adequate lighting provided?	<input type="checkbox"/>	<input type="checkbox"/>
12.18 Has appropriate personal protective equipment been provided for all persons?	<input type="checkbox"/>	<input type="checkbox"/>
12.19 Have suitable measures been taken to detect the presence of asbestos?	<input type="checkbox"/>	<input type="checkbox"/>
12.20 Has a competent person been appointed to oversee demolition operations?	<input type="checkbox"/>	<input type="checkbox"/>
13. Personnel		
13.1 Have measures been taken to ensure the provision of:		
• safety awareness training?	<input type="checkbox"/>	<input type="checkbox"/>
• first aid training?	<input type="checkbox"/>	<input type="checkbox"/>
• competent person training?	<input type="checkbox"/>	<input type="checkbox"/>
13.2 Has the need for health surveillance of certain employees been assessed and health surveillance provided where necessary?	<input type="checkbox"/>	<input type="checkbox"/>
14. Inspection and reports		
14.1 Are procedures in operation to ensure the frequent inspection of:		
• guard rails etc.?	<input type="checkbox"/>	<input type="checkbox"/>
• working platforms?	<input type="checkbox"/>	<input type="checkbox"/>
• excavations?	<input type="checkbox"/>	<input type="checkbox"/>
• personal suspension equipment?	<input type="checkbox"/>	<input type="checkbox"/>
• means for arresting falls?	<input type="checkbox"/>	<input type="checkbox"/>
• ladders?	<input type="checkbox"/>	<input type="checkbox"/>
• cofferdams and caissons?	<input type="checkbox"/>	<input type="checkbox"/>
• welfare facilities?	<input type="checkbox"/>	<input type="checkbox"/>
14.2 Are reporting arrangements in place in respect of the above inspections?	<input type="checkbox"/>	<input type="checkbox"/>

Display screen equipment workstations

1. Equipment		Yes	No
<i>Display screen</i>			
1.1	Are the characters on the screen well-defined and clearly formed, of adequate size and with adequate spacing between the characters and lines?	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Is the image on the screen stable, with no flickering or other forms of instability?	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Is brightness and the contrast between the characters and the background easily adjustable by the user or operator, and easily adjustable to ambient conditions?	<input type="checkbox"/>	<input type="checkbox"/>
1.4	Does the screen swivel and tilt easily and freely to suit the needs of the user/operator?	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Is it possible to use a separate base for the screen or an adjustable table?	<input type="checkbox"/>	<input type="checkbox"/>
1.6	Is the screen free of reflective glare and reflections liable to cause discomfort to the user/operator?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Keyboard</i>			
1.7	Is the keyboard tiltable and separate from the screen so as to allow the user/operator to find a comfortable working position avoiding fatigue in the arms or hands?	<input type="checkbox"/>	<input type="checkbox"/>
1.8	Is the space in front of the keyboard sufficient to provide support for the hands and arms of the user/operator?	<input type="checkbox"/>	<input type="checkbox"/>
1.9	Does the keyboard have a matt surface to avoid reflective glare?	<input type="checkbox"/>	<input type="checkbox"/>
1.10	Are the arrangement of the keyboard and the characteristics of the keys such as to facilitate the use of the keyboard?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Display screen equipment workstations (*Continued*)

	Yes	No
1.11 Are the symbols on the keys adequately contrasted and legible from the design working position?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Work desk or work surface</i>		
1.12 Does the work desk or work surface have a sufficiently large, low reflectance surface and allow a flexible arrangement of the screen, keyboard, documents and related equipment?	<input type="checkbox"/>	<input type="checkbox"/>
1.13 Is the document holder stable and adjustable and so positioned as to minimise the need for uncomfortable head and eye movements?	<input type="checkbox"/>	<input type="checkbox"/>
1.14 Is there adequate space for users/operators to find a comfortable position?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Work chair</i>		
1.15 Is the work chair stable and does it allow the user/operator easy freedom of movement and a comfortable position?	<input type="checkbox"/>	<input type="checkbox"/>
1.16 Is the seat adjustable in height?	<input type="checkbox"/>	<input type="checkbox"/>
1.17 Is the seat back adjustable in both height and tilt?	<input type="checkbox"/>	<input type="checkbox"/>
1.18 Is a footrest made available to any user/operator who wishes one?	<input type="checkbox"/>	<input type="checkbox"/>
2. Environmental factors		
<i>Space requirements</i>		
2.1 Is sufficient space provided for the user/operator to change position and vary movements?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Lighting</i>		
2.2 Is there adequate ambient lighting at the workstation?	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Is there adequate contrast between the screen and the background environment?	<input type="checkbox"/>	<input type="checkbox"/>

(*Continued*)

Display screen equipment workstations (*Continued*)

	Yes	No
2.4 Are disturbing glare and reflections on the screen or other equipment prevented by co-ordinating workplace and workstation layout with the positioning and technical characteristics of the artificial light sources?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Reflections and glare</i>		
2.5 Is the workstation so designed that sources of light, such as windows and other openings, transparent or translucent walls, and brightly coloured fixtures or walls cause no direct glare and no distracting reflections on the screen?	<input type="checkbox"/>	<input type="checkbox"/>
2.6 Are windows fitted with a suitable system of adjustable covering to attenuate the daylight that falls on the workstation?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Noise</i>		
2.7 Is noise emitted by equipment belonging to the workstation taken into account when the workstation is being equipped, with a view in particular to ensuring that attention is not distracted and speech is not disturbed?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Heat</i>		
2.8 Are measures taken to ensure that excess heat from equipment does not cause discomfort to users or operators?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Radiation</i>		
2.9 Are measures taken to ensure that all radiation is reduced to negligible levels from the point of view of the protection of the user/operator's health and safety?	<input type="checkbox"/>	<input type="checkbox"/>
<i>Humidity</i>		
2.10 Is an adequate level of humidity maintained at the workstation?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Display screen equipment workstations (*Continued*)

3. Interface between computer and user/operator	Yes	No
<i>Software and systems</i>		
3.1 Is software:		
<ul style="list-style-type: none"> • suitable for the task? • easy to use and, where appropriate adaptable to the level of knowledge or experience of the operator or user? 	<input type="checkbox"/>	<input type="checkbox"/>
3.2 If a quantitative or qualitative checking facility is used, are users or operators advised of the use of this facility?	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Do systems provide feedback to users or operators on the performance of those systems?	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Do systems display information in a format and at a pace which are adapted to users or operators?	<input type="checkbox"/>	<input type="checkbox"/>
3.5 Are the principles of software ergonomics applied, in particular to human data processing?	<input type="checkbox"/>	<input type="checkbox"/>

Electrical equipment

	Yes	No
1.1 Is there adequate protection against direct and indirect contact?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Is the equipment earthed?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Is a fuse installed and of the correct rating?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Does the system incorporate a circuit breaker?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Does the system incorporate an earth leakage circuit breaker (residual current device)?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Does the system operate at reduced voltage?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Does use of the equipment entail the need for a safe system of work (permit-to-work system) in terms of:		
• isolation procedure?	<input type="checkbox"/>	<input type="checkbox"/>
• checking voltages?	<input type="checkbox"/>	<input type="checkbox"/>
• supervision and control arrangements?	<input type="checkbox"/>	<input type="checkbox"/>
• physical precautions, e.g. barriers?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Are conductors insulated or safe by position?	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Are joints and connections mechanically and electrically suitable?	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Is there means for protection against excess current?	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Is there means for cutting off electrical supply and isolation of any circuit?	<input type="checkbox"/>	<input type="checkbox"/>
1.12 Are precautions taken with respect to equipment made dead?	<input type="checkbox"/>	<input type="checkbox"/>
1.13 Is there adequate working space, means of access and lighting?	<input type="checkbox"/>	<input type="checkbox"/>
1.14 Are arrangements for portable appliance testing adequate?	<input type="checkbox"/>	<input type="checkbox"/>
1.15 Is a portable appliance register available and maintained?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Electrical equipment (*Continued*)

	Yes	No
1.16 Have competent person(s) been appointed?	<input type="checkbox"/>	<input type="checkbox"/>
1.17 Are all suspect portable appliances removed from service immediately?	<input type="checkbox"/>	<input type="checkbox"/>
1.18 Is equipment visually inspected on a frequent basis?	<input type="checkbox"/>	<input type="checkbox"/>
1.19 Are measures taken to ensure the safe use of portable appliances?	<input type="checkbox"/>	<input type="checkbox"/>
1.20 Are appropriate precautions taken where work may entail adverse or hazardous environments?	<input type="checkbox"/>	<input type="checkbox"/>

Fire safety

	Yes	No
1. Electrical appliances		
1.1 Are appliances inspected, tested and labelled with date of last inspection?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Are heavy load appliances, including space heaters, connected to a permanent outlet?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Are flexes visible at all times?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Are circuit breakers of appropriate capacity installed?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Is the use of multi-point adaptors prohibited?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Are measures taken to prevent unsafe wiring and connections?	<input type="checkbox"/>	<input type="checkbox"/>
2. Fire doors and partitions		
2.1 Are doors and partitions in sound condition?	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Are self-closures fitted to doors?	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Are fire doors kept free from obstruction at all times?	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Are flame-retardant partitions installed at critical points?	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Are smoke detectors and sprinkler heads clear of obstructions?	<input type="checkbox"/>	<input type="checkbox"/>
3. Decorations and furnishings		
3.1 Are curtains and other fabrics flame-proofed?	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Is there a prohibition on the use of flammable decorations?	<input type="checkbox"/>	<input type="checkbox"/>
4. Open flame devices and appliances		
4.1 Is there a prohibition on the use of candles, gas lamps or other open flame devices?	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Are 'hot work' activities well-controlled?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Fire safety (*Continued*)

	Yes	No
5. General storage		
5.1 Are storage areas maintained in a clean and orderly condition?	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Is flammable refuse stored in closed metal bins?	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Are electric panels, fire appliances, fire exits, fire detection devices and sprinkler heads kept free from obstruction?	<input type="checkbox"/>	<input type="checkbox"/>
5.4 Is there a prohibition on storage of articles on stairways and in unauthorised areas?	<input type="checkbox"/>	<input type="checkbox"/>
6. Flammable and combustible substances		
6.1 Is there adequate ventilation to prevent accumulation of vapours?	<input type="checkbox"/>	<input type="checkbox"/>
6.2 Have all sources of ignition been eliminated?	<input type="checkbox"/>	<input type="checkbox"/>
6.3 Are small containers of flammable liquids stored in metal cabinets?	<input type="checkbox"/>	<input type="checkbox"/>
6.4 Are large containers e.g. 50 gallon drums, of flammable liquids stored in purpose-built store?	<input type="checkbox"/>	<input type="checkbox"/>
7. Smoking		
7.1 Are there restrictions on smoking, including designated 'No smoking' areas?	<input type="checkbox"/>	<input type="checkbox"/>
7.2 Is there evidence of smoking in unauthorised areas?	<input type="checkbox"/>	<input type="checkbox"/>
8. Means of escape and exits		
8.1 Is the means of escape clearly indicated?	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Are fire exit doors maintained and capable of opening with ease?	<input type="checkbox"/>	<input type="checkbox"/>
8.3 Are fire exits kept clear at all times and suitably marked?	<input type="checkbox"/>	<input type="checkbox"/>
8.4 Is there adequate provision for disabled persons and wheelchair users?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Fire safety (*Continued*)

	Yes	No
9. Housekeeping and cleaning		
9.1 Is a high level of housekeeping maintained?	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Is there adequate storage and segregation of flammable refuse?	<input type="checkbox"/>	<input type="checkbox"/>
9.3 Is the layout of working areas safe?	<input type="checkbox"/>	<input type="checkbox"/>
9.4 Is cleaning and removal of refuse regularly carried out?	<input type="checkbox"/>	<input type="checkbox"/>
10. Fire appliances		
10.1 Are fire appliances:		
• clearly indicated?	<input type="checkbox"/>	<input type="checkbox"/>
• wall-mounted?	<input type="checkbox"/>	<input type="checkbox"/>
• maintained?	<input type="checkbox"/>	<input type="checkbox"/>
10.2 Have designated employees been trained in the correct use of appliances?	<input type="checkbox"/>	<input type="checkbox"/>
11. Fire instructions		
11.1 Are fire instructions clearly displayed?	<input type="checkbox"/>	<input type="checkbox"/>
11.2 Are fire instructions drawn to the attention of employees regularly?	<input type="checkbox"/>	<input type="checkbox"/>
12. Fire alarm and detection devices		
12.1 Are alarms and detection devices clearly indicated?	<input type="checkbox"/>	<input type="checkbox"/>
12.2 Are employees trained in responding to the alarm?	<input type="checkbox"/>	<input type="checkbox"/>
12.3 Are alarms and detection devices maintained?	<input type="checkbox"/>	<input type="checkbox"/>
12.4 Are detection devices wired in?	<input type="checkbox"/>	<input type="checkbox"/>
13. Sprinkler systems		
13.1 Is the system inspected and maintained on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>
13.2 Are sprinkler heads kept unobstructed?	<input type="checkbox"/>	<input type="checkbox"/>

Flammable substances

	Yes	No
1. Flammable liquids		
1.1 Are there separate storage arrangements for flammable liquids?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Are only the smallest quantities stored in work area?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Are small quantities of flammable liquids transported in closed transfer containers?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Are transfer containers correctly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Is the system for dispensing from bulk containers safe?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Are fire appliances available during use and dispensing operations?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Is there adequate ventilation in storage rooms?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Is a ban on smoking and naked lights actively enforced?	<input type="checkbox"/>	<input type="checkbox"/>
2. Liquefied and compressed gases		
2.1 Are cylinders stored and transported in the upright position?	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Are cylinders stored in open well-ventilated areas out of direct sunlight?	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Are cylinders secured with wall chains or stored in racks?	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Are storage areas and rooms suitably marked?	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Are internal store rooms:		
• in safe position or of fire-resisting structure?	<input type="checkbox"/>	<input type="checkbox"/>
• adequately ventilated?	<input type="checkbox"/>	<input type="checkbox"/>
• used solely for storage of LPG and/or acetylene cylinders?	<input type="checkbox"/>	<input type="checkbox"/>
• provided with safe means of escape?	<input type="checkbox"/>	<input type="checkbox"/>
2.6 Are there adequate precautions against spillages and leakages?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Flammable substances (*Continued*)

	Yes	No
2.7 Are employees supervised to ensure no handling of cylinders by their valves and no dropping or rolling of cylinders?	<input type="checkbox"/>	<input type="checkbox"/>
2.8 Are there measures to ensure all cylinder valves are turned off when not in use?	<input type="checkbox"/>	<input type="checkbox"/>
2.9 Are oxygen cylinders stored separately?	<input type="checkbox"/>	<input type="checkbox"/>
2.10 Are measures taken to prevent build up of solid waste residues on surfaces?	<input type="checkbox"/>	<input type="checkbox"/>
2.11 Is fire-fighting equipment readily available?	<input type="checkbox"/>	<input type="checkbox"/>
2.12 Are procedures in operation for the reporting of defects in plant, equipment and appliances?	<input type="checkbox"/>	<input type="checkbox"/>

Floors and traffic routes

		Yes	No
1.1	Are all floors and traffic routes suitable for the purpose for which they are used?	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Are all floors and traffic routes of sound construction, adequate strength and stability, taking into account the loads placed on them and the traffic passing over them?	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Are measures taken to ensure that the floor or surface of a traffic route has no dangerous hole or slope, and is even and slip-proof?	<input type="checkbox"/>	<input type="checkbox"/>
1.4	Are holes and defects in surfaces to floors and traffic routes dealt with expeditiously?	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Are temporary holes in floors and traffic routes suitably protected against the risk of tripping or falling?	<input type="checkbox"/>	<input type="checkbox"/>
1.6	Is floor drainage provided where floors are liable to be wet on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>
1.7	Are the surfaces of floors and traffic routes which are likely to get wet regularly, or be subject to spillages, slip resistant?	<input type="checkbox"/>	<input type="checkbox"/>
1.8	Are floors and traffic routes kept free from obstructions and from articles and substances which could contribute to slips and falls?	<input type="checkbox"/>	<input type="checkbox"/>
1.9	Are floors around machinery slip-resistant and kept free from slippery substances and loose materials?	<input type="checkbox"/>	<input type="checkbox"/>
1.10	Are measures taken to keep floors and traffic routes free of obstruction?	<input type="checkbox"/>	<input type="checkbox"/>
1.11	Are housekeeping procedures to cover spillages adequate?	<input type="checkbox"/>	<input type="checkbox"/>
1.12	Are measures taken to prevent slipping in the event of snow and ice?	<input type="checkbox"/>	<input type="checkbox"/>
1.13	Are handrails and, where appropriate, guard rails, provided on staircases?	<input type="checkbox"/>	<input type="checkbox"/>
1.14	Where floors are liable to become slippery are employees provided with slip-resistant footwear?	<input type="checkbox"/>	<input type="checkbox"/>

Hazardous substances

	Yes	No
1. Information and identification		
1.1 Is an up-to-date list of all hazardous substances held on site readily available?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Are safety data sheets available for all hazardous substances held on site?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Are all packages and containers correctly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Are all transfer containers suitable for the purpose and correctly labelled?	<input type="checkbox"/>	<input type="checkbox"/>
2. Storage		
2.1 Are all stores and external storage areas safe in respect of construction, layout, security and control?	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Are hazardous substances correctly segregated?	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Are cleaning and housekeeping levels adequate?	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Are all issues of hazardous substances to employees adequately controlled?	<input type="checkbox"/>	<input type="checkbox"/>
3. Protection		
3.1 Are appropriate warning signs displayed in areas of storage and use?	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Is suitable personal protective equipment available, maintained in safe condition and used by employees?	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Are emergency eye wash facilities and showers available, suitably located and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Are the above facilities provided with frost protection?	<input type="checkbox"/>	<input type="checkbox"/>
3.5 Are adequate and suitable first aid facilities available, suitably located and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
3.6 Are adequate and appropriate fire appliances available, suitably located, accessible and maintained?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Hazardous substances (*Continued*)

	Yes	No
3.7 Are supplies of appropriate neutralising compounds readily available in the event of spillage?	<input type="checkbox"/>	<input type="checkbox"/>
4. Procedures		
4.1 Are written safe handling procedures prepared and available for all hazardous substances?	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Is there a specific procedure for dealing with spillages of all types of substance?	<input type="checkbox"/>	<input type="checkbox"/>
4.3 Is there a routine inspection procedure covering:		
• personal protective equipment?	<input type="checkbox"/>	<input type="checkbox"/>
• emergency showers and eye washes?	<input type="checkbox"/>	<input type="checkbox"/>
• first aid boxes?	<input type="checkbox"/>	<input type="checkbox"/>
• fire appliances?	<input type="checkbox"/>	<input type="checkbox"/>
• chemical dosing to plant?	<input type="checkbox"/>	<input type="checkbox"/>
• use of neutralising compounds?	<input type="checkbox"/>	<input type="checkbox"/>
5. Training		
5.1 Are employees trained in:		
• safe handling procedures?	<input type="checkbox"/>	<input type="checkbox"/>
• use of fire appliances?	<input type="checkbox"/>	<input type="checkbox"/>
• dealing with spillages?	<input type="checkbox"/>	<input type="checkbox"/>
• the use and care of personal protective equipment?	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Are first aiders trained to deal with injuries associated with hazardous substances?	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Are training records maintained?	<input type="checkbox"/>	<input type="checkbox"/>

Maintenance work

	Yes	No
1.1 Is a safe system of work, including operation of permit-to-work system in high risk situations, established, documented and used?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Are competent persons appointed for high risk operations?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Are method statements prepared and used, particularly for contractors involved in maintenance work?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Are 'Rules for the safe conduct of project work' actively enforced?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Are controlled areas specifically designated?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Is there adequate control over access to the working area?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Have all operators been provided with information, instruction and training?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Are all signs, marking and labelling adequate?	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Is personal protective equipment provided, suitable for the circumstances and used?	<input type="checkbox"/>	<input type="checkbox"/>

Manual handling operations

The following check list, which forms Schedule 1 to the Manual Handling Operations Regulations 1992, should be used.

Factors to which the employer must have regard and questions he must consider when making an assessment of manual handling operations.

1. The tasks	Yes	No
Do they involve:		
• holding or manipulating loads at distance from trunk?	<input type="checkbox"/>	<input type="checkbox"/>
• unsatisfactory bodily movement or posture, especially		
○ twisting the trunk?	<input type="checkbox"/>	<input type="checkbox"/>
○ stooping?	<input type="checkbox"/>	<input type="checkbox"/>
○ reaching upwards?	<input type="checkbox"/>	<input type="checkbox"/>
• excessive movement of loads, especially:		
○ excessive lifting or lowering distances?	<input type="checkbox"/>	<input type="checkbox"/>
○ excessive carrying distances?	<input type="checkbox"/>	<input type="checkbox"/>
• excessive pushing or pulling of loads?	<input type="checkbox"/>	<input type="checkbox"/>
• risk of sudden movement of loads?	<input type="checkbox"/>	<input type="checkbox"/>
• frequent or prolonged physical effort?	<input type="checkbox"/>	<input type="checkbox"/>
• insufficient rest or recovery periods?	<input type="checkbox"/>	<input type="checkbox"/>
• a rate of work imposed by a process?	<input type="checkbox"/>	<input type="checkbox"/>
2. The loads		
Are they:		
• heavy?	<input type="checkbox"/>	<input type="checkbox"/>
• bulky or unwieldy?	<input type="checkbox"/>	<input type="checkbox"/>
• difficult to grasp?	<input type="checkbox"/>	<input type="checkbox"/>
• unstable, or with contents likely to shift?	<input type="checkbox"/>	<input type="checkbox"/>
• sharp, hot or otherwise potentially damaging?	<input type="checkbox"/>	<input type="checkbox"/>
3. The working environment		
Are there:		
• space constraints preventing good posture?	<input type="checkbox"/>	<input type="checkbox"/>
• uneven, slippery or unstable floors?	<input type="checkbox"/>	<input type="checkbox"/>
• variations in level of floors or work surfaces?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Manual handling operations (*Continued*)

	Yes	No
• extremes of temperature or humidity?	<input type="checkbox"/>	<input type="checkbox"/>
• conditions causing ventilation problems or gusts of wind?	<input type="checkbox"/>	<input type="checkbox"/>
• poor lighting conditions?	<input type="checkbox"/>	<input type="checkbox"/>
4. Individual capability		
Does the job:		
• require unusual strength, height, etc.?	<input type="checkbox"/>	<input type="checkbox"/>
• create a hazard to those who might reasonably be considered to be pregnant or to have a health problem?	<input type="checkbox"/>	<input type="checkbox"/>
• require special information or training for its safe performance?	<input type="checkbox"/>	<input type="checkbox"/>
5. Other factors		
Is movement or posture hindered by personal protective equipment or by clothing?	<input type="checkbox"/>	<input type="checkbox"/>

Mobile mechanical handling equipment (lift trucks, etc.)

	Yes	No
1.1 Is the equipment used only by authorised and trained operators?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Where left unattended, are the forks of the truck lowered and controls immobilised?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Are drivers trained and supervised to ensure the maximum rated capacity of the truck is not exceeded?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Are trucks adapted or equipped to reduce the risk to the operator from overturning?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Does each truck incorporate a roll-over protective structure which ensures it does no more than fall on its side?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Do trucks incorporate devices for improving the operators' vision?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Are measures taken to ensure passengers are not carried unless in a specific cage or purpose designed working platform?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 When used on public highway, are trucks fitted with appropriate brakes, lights and steering?	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Are keys kept securely and issued only to authorised operators?	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Are trucks constructed or adapted as to be suitable for the purpose of use?	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Are trucks used only for operations which, and under conditions for which, they are suitable?	<input type="checkbox"/>	<input type="checkbox"/>
1.12 Are all trucks maintained in an efficient state, in efficient working order and in good repair?	<input type="checkbox"/>	<input type="checkbox"/>
1.13 Are trucks subject to a formal maintenance programme based on the manufacturers'	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Mobile mechanical handling equipment (lift trucks, etc.) (Continued)

	Yes	No
servicing recommendations for inspection, maintenance and servicing?		
1.14 Are all trucks subject to a weekly maintenance check including an examination of steering gear, lifting gear, brakes, lighting, battery, mast, forks, attachments and any chains or ropes used in the lifting mechanism?	<input type="checkbox"/>	<input type="checkbox"/>
1.15 Are lifting chains examined on an annual basis and certificated?	<input type="checkbox"/>	<input type="checkbox"/>
1.16 Are trucks subject to six-monthly and annual examination by a trained fitter or representative of the manufacturer?	<input type="checkbox"/>	<input type="checkbox"/>
1.17 Is a maintenance log kept up to date for each truck?	<input type="checkbox"/>	<input type="checkbox"/>

Noise

	Yes	No
1.1 Is exposure to workplace noise assessed on a regular basis by means of:		
(a) observation of specific working practices?	<input type="checkbox"/>	<input type="checkbox"/>
(b) reference to relevant information on the probable levels of noise corresponding to any equipment used in the particular working conditions?	<input type="checkbox"/>	<input type="checkbox"/>
(c) if necessary, measurement of the level of noise to which employees are likely to be exposed?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 As a result of assessments, are any employees likely to be exposed to noise at or above a lower exposure action value, an upper exposure action value, or an exposure limit value?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Do risk assessments include consideration of:		
(a) the level, type and duration of exposure, including any exposure to peak sound pressure?	<input type="checkbox"/>	<input type="checkbox"/>
(b) the effects of exposure to noise on employees or groups of employees whose health is at particular risk from such exposure?	<input type="checkbox"/>	<input type="checkbox"/>
(c) any effects on the health and safety of employees resulting from the interaction between noise and the use of ototoxic substances at work, or between noise and vibration?	<input type="checkbox"/>	<input type="checkbox"/>
(d) any indirect effects on the health and safety of employees resulting from the interaction between noise and audible warning signals or other sounds that need to be audible in order to reduce risk at work?	<input type="checkbox"/>	<input type="checkbox"/>
(e) any information provided by the manufacturers of work equipment?	<input type="checkbox"/>	<input type="checkbox"/>
(f) the availability of alternative equipment designed to reduce the emission of noise?	<input type="checkbox"/>	<input type="checkbox"/>
(g) any extension of exposure to noise at the workplace, including exposure in rest facilities supervised by the employer?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Noise (*Continued*)

	Yes	No
(h) appropriate information obtained following health surveillance, including, where possible, published information?	<input type="checkbox"/>	<input type="checkbox"/>
(i) the availability of personal hearing protectors with adequate attenuation characteristics?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Are records of assessments maintained and reviewed regularly?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Is the risk of hearing damage either eliminated at source or reduced to as low a level as is reasonably practicable?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 If an employee is likely to be exposed to noise at or above an upper exposure action value, is exposure reduced to as a low a level as is reasonably practicable by establishing and implementing a programme or organisational and technical measures, excluding the provision of personal hearing protectors, which is appropriate to the activity?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Do the actions taken by the employer include consideration of:		
(a) other working methods which reduce exposure to noise?	<input type="checkbox"/>	<input type="checkbox"/>
(b) choice of appropriate work equipment emitting the least possible noise, taking account of the work to be done?	<input type="checkbox"/>	<input type="checkbox"/>
(c) the design and layout of workplaces, work stations and rest facilities?	<input type="checkbox"/>	<input type="checkbox"/>
(d) suitable and sufficient information and training for employees, such that work equipment may be used correctly, in order to minimise their exposure to noise?	<input type="checkbox"/>	<input type="checkbox"/>
(e) reduction of noise by technical means?	<input type="checkbox"/>	<input type="checkbox"/>
(f) appropriate maintenance programmes for work equipment, the workplace and workplace systems?	<input type="checkbox"/>	<input type="checkbox"/>
(g) limitation of the duration and intensity of exposure to noise?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Noise (*Continued*)

	Yes	No
(h) appropriate work schedules with adequate rest periods?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Is personal hearing protection provided for employees where they are likely to be exposed to noise at or above a lower exposure action value?	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Are Hearing Protection Zones identified and demarcated?	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Is entry to Hearing Protection Zones controlled?	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Are noise control measures:		
(a) fully and properly used?	<input type="checkbox"/>	<input type="checkbox"/>
(b) maintained in an efficient state, in efficient working order and in good repair?	<input type="checkbox"/>	<input type="checkbox"/>
1.12 Do employees:		
(a) make full and proper use of personal hearing protectors and any control measures provided?	<input type="checkbox"/>	<input type="checkbox"/>
(b) report defects in personal hearing protectors or other control measures?	<input type="checkbox"/>	<input type="checkbox"/>
1.13 Where risk assessment identifies a risk to health to employees, are such employees placed under suitable health surveillance, including testing of their hearing?	<input type="checkbox"/>	<input type="checkbox"/>
1.14 Are health records maintained for those employees undergoing health surveillance?	<input type="checkbox"/>	<input type="checkbox"/>
1.15 Where employees are found to have identifiable hearing damage, does the employer ensure they are examined by a doctor and/or appropriate specialist?	<input type="checkbox"/>	<input type="checkbox"/>
1.16 Are employees provided with suitable information, instruction and training where they may be exposed to noise at or above a lower action value?	<input type="checkbox"/>	<input type="checkbox"/>

Offices and commercial premises

1. Fire		Yes	No
1.1	Is there evidence of overloading, abuse and misuse of electrical systems?	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Are flammable materials, such as floor polishes, spirit-based cleaning fluids and packing materials stored safely?	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Is smoking prohibited?	<input type="checkbox"/>	<input type="checkbox"/>
1.4	Is there evidence of employees smoking in store rooms and other areas not generally occupied by employees?	<input type="checkbox"/>	<input type="checkbox"/>
1.5	Is the use of freestanding heating appliances, particularly radiant-type electric fires and portable gas-fired heaters, prohibited?	<input type="checkbox"/>	<input type="checkbox"/>
1.6	Is there adequate control over the storage of waste paper and packing materials?	<input type="checkbox"/>	<input type="checkbox"/>
1.7	Is the fire alarm tested on a weekly basis?	<input type="checkbox"/>	<input type="checkbox"/>
1.8	Is an emergency fire evacuation undertaken regularly?	<input type="checkbox"/>	<input type="checkbox"/>
1.9	Are competent persons appointed and trained to oversee evacuations of the premises in the event of fire?	<input type="checkbox"/>	<input type="checkbox"/>
1.10	Are key personnel trained in the correct use of fire appliances?	<input type="checkbox"/>	<input type="checkbox"/>
2. Structural items			
2.1	Are measures taken to prevent slipping and tripping hazards arising from: <ul style="list-style-type: none"> • slippery floor finishes, wet floors, spillages and defective floor surfaces? • dangerous staircases? • the use by employees of unsuitable footwear? 	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Do all swing doors incorporate a clear view panel?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Offices and commercial premises (*Continued*)

	Yes	No
3. Work equipment		
3.1 Is all equipment suitable for the purpose for which it is used?	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Is all equipment maintained in an efficient state, in efficient working order and in good repair?	<input type="checkbox"/>	<input type="checkbox"/>
4. Passenger lifts		
4.1 Are all lifts regularly inspected and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Do all lift cars level off correctly at their landings?	<input type="checkbox"/>	<input type="checkbox"/>
4.3 Are all lift cars marked with the maximum safe working load?	<input type="checkbox"/>	<input type="checkbox"/>
4.4 Do all lift cars incorporate a notice indicating the maximum number of passengers who can be carried at one time?	<input type="checkbox"/>	<input type="checkbox"/>
4.5 Do lift cars incorporate an emergency alarm device in the event of breakdown between floors or failure of the doors to open?	<input type="checkbox"/>	<input type="checkbox"/>
5. Access equipment		
5.1 Are all forms of access equipment, e.g. ladders, step ladders and mobile ladders, inspected on a regular basis?	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Are employees instructed in the safe use of access equipment?	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Are ladders for internal use fitted with non-slip feet?	<input type="checkbox"/>	<input type="checkbox"/>
5.4 Are step ladders fitted with a handrail?	<input type="checkbox"/>	<input type="checkbox"/>
5.5 Are working platforms to step ladders fitted with a guard rail?	<input type="checkbox"/>	<input type="checkbox"/>
6. Hand tools		
6.1 Are measures taken to ensure that safety knives are provided where necessary?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Offices and commercial premises (*Continued*)

7. Manual handling operations	Yes	No
7.1 Are employees exposed to risk of manual handling injuries?	<input type="checkbox"/>	<input type="checkbox"/>
7.2 Are mechanical handling aids, such as hand trucks and trolleys, provided to eliminate the need for manual handling?	<input type="checkbox"/>	<input type="checkbox"/>
7.3 Are employees instructed to use the mechanical handling aids wherever practicable?	<input type="checkbox"/>	<input type="checkbox"/>
7.4 Are specific precautions taken in the case of pregnant female employees, young persons and physically disabled employees with respect to manual handling operations?	<input type="checkbox"/>	<input type="checkbox"/>
7.5 Has a suitable and sufficient manual handling risk assessment been undertaken in cases where potentially dangerous manual handling cannot be avoided? (See <i>Manual handling operations</i> check list, p. 229)	<input type="checkbox"/>	<input type="checkbox"/>
8. Hazardous substances		
8.1 Are hazardous substances, such as cleaning preparations, used?	<input type="checkbox"/>	<input type="checkbox"/>
8.2 Have employees and other persons, such as the employees of cleaning contractors, been informed, instructed and trained on the safe use of such substances?	<input type="checkbox"/>	<input type="checkbox"/>
8.3 Are persons using hazardous substances adequately supervised?	<input type="checkbox"/>	<input type="checkbox"/>
9. Electricity		
9.1 Have the premises been re-wired within the last 10 years?	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Are all electrical appliances examined and tested by a competent person on a regular basis and a record of such inspections and tests maintained?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Offices and commercial premises (*Continued*)

	Yes	No
9.3 Is there evidence of insufficient electrical points resulting in the use of multi-point adaptors and extension leads?	<input type="checkbox"/>	<input type="checkbox"/>
9.4 Is there evidence of overloading of electrical sockets?	<input type="checkbox"/>	<input type="checkbox"/>
9.5 Are flexes, leads and cables: <ul style="list-style-type: none"> • in good condition and undamaged? • properly connected to the appliance? • securely attached to the plug? • not allowed to trail across floors? • where laid across floors, contained in protective strips? 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
9.6 Are all plugs fitted with the correct fuse?	<input type="checkbox"/>	<input type="checkbox"/>
9.7 Where more than one appliance is supplied from a power point, is a fused multi-socket block used?	<input type="checkbox"/>	<input type="checkbox"/>
9.8 Is there a procedure for ensuring faulty electrical equipment is removed from service immediately?	<input type="checkbox"/>	<input type="checkbox"/>
10. Display screen equipment workstations		
See <i>Display screen equipment workstations</i> check list, p. 214		
11. Environmental factors		
11.1 Do employees have sufficient space to undertake tasks safely?	<input type="checkbox"/>	<input type="checkbox"/>
11.2 Is a reasonable temperature maintained at all times during working hours?	<input type="checkbox"/>	<input type="checkbox"/>
11.3 Is a thermometer provided on each floor to enable employees to determine the temperature of the workplace?	<input type="checkbox"/>	<input type="checkbox"/>
11.4 Is effective and suitable provision made to ensure that every part of the workplace is ventilated by a sufficient quantity of fresh or purified air?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Offices and commercial premises (*Continued*)

	Yes	No
11.5 Is suitable and sufficient lighting provided throughout the premises, including external areas?	<input type="checkbox"/>	<input type="checkbox"/>
11.6 Are measures taken to control excessive noise?	<input type="checkbox"/>	<input type="checkbox"/>
12. Cleaning and housekeeping		
12.1 Is the workplace (including furniture, furnishings and fittings) kept sufficiently clean?	<input type="checkbox"/>	<input type="checkbox"/>
12.2 Is there a formally written cleaning schedule for the premises?	<input type="checkbox"/>	<input type="checkbox"/>
12.3 Are cleaning activities monitored on a regular basis to ensure compliance with the cleaning schedule?	<input type="checkbox"/>	<input type="checkbox"/>
13. Health risks		
13.1 Are employees exposed to the risk of:		
• work-related upper limb disorders?	<input type="checkbox"/>	<input type="checkbox"/>
• visual fatigue?	<input type="checkbox"/>	<input type="checkbox"/>
• postural fatigue?	<input type="checkbox"/>	<input type="checkbox"/>
• stress-related ill-health?	<input type="checkbox"/>	<input type="checkbox"/>
14. Violence, bullying and harassment		
14.1 Is there a corporate policy dealing with violence, bullying and harassment at work?	<input type="checkbox"/>	<input type="checkbox"/>
14.2 Is there evidence that certain managers and supervisors may subject employees to mental and physical violence, bullying and harassment?	<input type="checkbox"/>	<input type="checkbox"/>
14.3 Are disciplinary measures in force to cover these issues?	<input type="checkbox"/>	<input type="checkbox"/>
14.4 Are employees exposed to the risk of violence, bullying and harassment when dealing with clients, customers and members of the public?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Offices and commercial premises (*Continued*)

15. Procedures	Yes	No
15.1 Are the premises inspected on a regular basis with the intention of identifying hazards and specifying measures to eliminate or control these hazards?	<input type="checkbox"/>	<input type="checkbox"/>
15.2 Are risk assessments undertaken on a regular basis with respect to:		
• the workplace?	<input type="checkbox"/>	<input type="checkbox"/>
• work equipment?	<input type="checkbox"/>	<input type="checkbox"/>
• work activities?	<input type="checkbox"/>	<input type="checkbox"/>
• personal protective equipment?	<input type="checkbox"/>	<input type="checkbox"/>
• manual handling operations?	<input type="checkbox"/>	<input type="checkbox"/>
• display screen equipment?	<input type="checkbox"/>	<input type="checkbox"/>
• substances hazardous to health?	<input type="checkbox"/>	<input type="checkbox"/>
• noise?	<input type="checkbox"/>	<input type="checkbox"/>
• stress at work?	<input type="checkbox"/>	<input type="checkbox"/>
15.3 Are the outcomes of risk assessments recorded and action taken appropriately in respect of recommendations arising from the risk assessment process?	<input type="checkbox"/>	<input type="checkbox"/>

Personal protective equipment

	Yes	No
1.1 Is the PPE suitable:		
• in terms of preventing or controlling exposure to risk?	<input type="checkbox"/>	<input type="checkbox"/>
• for the work being undertaken?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Are the needs of the user taken into account in terms of:		
• comfort?	<input type="checkbox"/>	<input type="checkbox"/>
• ease of movement?	<input type="checkbox"/>	<input type="checkbox"/>
• convenience in putting on, use and removal?	<input type="checkbox"/>	<input type="checkbox"/>
• individual suitability?	<input type="checkbox"/>	<input type="checkbox"/>
• vision?	<input type="checkbox"/>	<input type="checkbox"/>
• perception of hazards?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Are the ergonomic requirements and state of health of persons using the PPE taken into account?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Is the PPE capable of fitting the wearer correctly, if necessary after adjustments?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Is the PPE compatible with other PPE worn?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Have the risks involved at the place where exposure may occur been assessed?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Is the PPE appropriate in protecting operators against the identified risks?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Has the scale of the hazard been identified?	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Have standards representing recognised 'safe limits' for the hazard been taken into account?	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Are there specific requirements under regulations?	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Are there specific job requirements or restrictions which must be considered?	<input type="checkbox"/>	<input type="checkbox"/>
1.12 Have environmental stressors present been taken into account?	<input type="checkbox"/>	<input type="checkbox"/>
1.13 Is the PPE easy to clean, sanitise and maintain and is replacement of parts simple?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Personal protective equipment (*Continued*)

	Yes	No
1.14 Is accommodation provided for PPE when not being used?	<input type="checkbox"/>	<input type="checkbox"/>
1.15 Is information, instruction and training provided for all users of the PPE?	<input type="checkbox"/>	<input type="checkbox"/>
1.16 Are steps taken by managers to ensure correct use of the PPE?	<input type="checkbox"/>	<input type="checkbox"/>
1.17 Are there arrangements for employees to report loss of or defect in PPE?	<input type="checkbox"/>	<input type="checkbox"/>

Radiation hazards

	Yes	No
1.1 Are safe systems of work, which restrict exposure, prepared and in use?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Does prior assessment of radiation risks take place?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Is there a contingency plan in operation in respect of foreseeable accident, occurrence or incident?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Is there adequate control over sealed sources and unsealed radioactive substances held in the hand or directly manipulated by hand?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Is there adequate management of controlled areas and supervised areas?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Is there a system for formal designation of classified persons for working in controlled areas?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Is radiation monitoring of controlled or supervised areas undertaken?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Do operators receive pre-employment and continuing medical examinations?	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Are competent radiation protection advisers appointed?	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Are radiation protection supervisors appointed?	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Is there a system for authorisation of persons prior to use of accelerators or X-ray sets for specified purposes?	<input type="checkbox"/>	<input type="checkbox"/>
1.12 Is information, instruction and training provided for radiation protection advisers and employees?	<input type="checkbox"/>	<input type="checkbox"/>
1.13 Are written local rules established and brought to the attention of persons involved?	<input type="checkbox"/>	<input type="checkbox"/>
1.14 Is appropriate supervision provided at all times?	<input type="checkbox"/>	<input type="checkbox"/>
1.15 Is there a formal system of dosimetry and maintenance of dose records?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Radiation hazards (*Continued*)

	Yes	No
1.16 Is there a system for training and maintaining employee awareness?	<input type="checkbox"/>	<input type="checkbox"/>
1.17 Is continuous and spot-check radiation (dose) monitoring undertaken?	<input type="checkbox"/>	<input type="checkbox"/>
1.18 Does the employer adhere to maximum permissible dose limits?	<input type="checkbox"/>	<input type="checkbox"/>
1.19 Are all sources adequately enclosed?	<input type="checkbox"/>	<input type="checkbox"/>
1.20 Is there efficient ventilation of working area?	<input type="checkbox"/>	<input type="checkbox"/>
1.21 Are impervious working surfaces provided and maintained?	<input type="checkbox"/>	<input type="checkbox"/>
1.22 Are all work techniques controlled and supervised?	<input type="checkbox"/>	<input type="checkbox"/>
1.23 Are remote control handling facilities provided?	<input type="checkbox"/>	<input type="checkbox"/>
1.24 Are there adequate arrangements for the control, accounting for, safe keeping, safe transporting and moving of radioactive substances?	<input type="checkbox"/>	<input type="checkbox"/>
1.25 Are there adequate arrangements for ensuring safety of equipment used for medical exposure?	<input type="checkbox"/>	<input type="checkbox"/>
1.26 Is there formal investigation of exposure to ionising radiation:		
• if three tenths of the annual whole body dose is exceeded?	<input type="checkbox"/>	<input type="checkbox"/>
• where a person has been overexposed as a result of malfunction or defect in equipment?	<input type="checkbox"/>	<input type="checkbox"/>
1.27 Is there a procedure for notification of occurrences to the HSE?	<input type="checkbox"/>	<input type="checkbox"/>
1.28 Are washing and clothing changing facilities adequate and suitable?	<input type="checkbox"/>	<input type="checkbox"/>
1.29 Is appropriate personal protective equipment provided and used?	<input type="checkbox"/>	<input type="checkbox"/>

Violence at work – personal risk checklist

	Yes	No
1.1 Do you ensure that someone knows where you are at any particular point in time?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 If you change your plans, do you inform someone in authority?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Do you check or vet people you go to meet alone?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Do you ensure that you can be contacted at all times?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Where there is a check-in system, do you use it?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Do you consider where you park, ensuring that it's safe and well-lit?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Do you ensure that you use the safest route, not necessarily the quickest?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Do you limit the amount of money and other valuable items that you carry?	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Do you take appropriate precautions if you are alone at work at any time?	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Do you ensure that you are properly protected from members of the public?	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Do you carry a personal alarm?	<input type="checkbox"/>	<input type="checkbox"/>

Work equipment

	Yes	No
1.1 Is the equipment suitable for the purpose for which it is to be used?	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Is it maintained in an efficient state, in efficient working order and in good repair?	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Where there may be specific risks from use of work equipment, is use restricted to designated persons?	<input type="checkbox"/>	<input type="checkbox"/>
1.4 Is there adequate information and, where appropriate, written instructions in use of work equipment?	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Are persons using specific items of work equipment trained in the use of same?	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Are there prescribed precautions with respect to dangerous parts of work equipment?	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Are measures taken to prevent or control specified hazards from use of work equipment?	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Is there adequate protection in the case of equipment working at very high or low temperature?	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Are the controls for starting or making a significant change in operating conditions adequate with respect to:		
• stop controls?	<input type="checkbox"/>	<input type="checkbox"/>
• emergency stop control?	<input type="checkbox"/>	<input type="checkbox"/>
• general controls?	<input type="checkbox"/>	<input type="checkbox"/>
• control systems?	<input type="checkbox"/>	<input type="checkbox"/>
• means of isolation from sources of energy?	<input type="checkbox"/>	<input type="checkbox"/>
1.10 Is adequate lighting provided?	<input type="checkbox"/>	<input type="checkbox"/>
1.11 Are maintenance operations undertaken safely?	<input type="checkbox"/>	<input type="checkbox"/>
1.12 Are hazards and danger points clearly marked?	<input type="checkbox"/>	<input type="checkbox"/>
1.13 Are there adequate warnings and warning devices?	<input type="checkbox"/>	<input type="checkbox"/>

Workplaces

		Yes	No
1. Maintenance			
1.1	Is the workplace, equipment, devices and systems maintained in an efficient state, in efficient working order and in good repair?	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Are equipment, devices and systems, where appropriate, under a suitable system of maintenance?	<input type="checkbox"/>	<input type="checkbox"/>
1.3	Are mechanical ventilation systems subject to regular maintenance?	<input type="checkbox"/>	<input type="checkbox"/>
2. Environmental factors			
2.1	Is there effective and suitable provision for workplace ventilation?	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Is ventilation plant equipped with warning devices to indicate plant failure?	<input type="checkbox"/>	<input type="checkbox"/>
2.3	Is a reasonable temperature maintained at all times?	<input type="checkbox"/>	<input type="checkbox"/>
2.4	Are heating and cooling systems safe and with no emission of gases, fumes, etc?	<input type="checkbox"/>	<input type="checkbox"/>
2.5	Is a sufficient number of thermometers provided?	<input type="checkbox"/>	<input type="checkbox"/>
2.6	Is suitable and sufficient lighting installed?	<input type="checkbox"/>	<input type="checkbox"/>
2.7	Is suitable and sufficient emergency lighting installed?	<input type="checkbox"/>	<input type="checkbox"/>
2.8	Is the cleanliness of: <ul style="list-style-type: none"> • workplace, furniture, furnishings and fittings • floor, wall and ceiling surfaces maintained to a satisfactory level?	<input type="checkbox"/>	<input type="checkbox"/>
2.9	Are accumulations of waste materials removed regularly and suitable receptacles provided for waste?	<input type="checkbox"/>	<input type="checkbox"/>
2.10	Is sufficient working space provided for all employees?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Workplaces (Continued)

	Yes	No
2.11 Are workstations suitable for persons using them and for the work being undertaken?	<input type="checkbox"/>	<input type="checkbox"/>
2.12 Are suitable seats, including footrests, provided at workstations?	<input type="checkbox"/>	<input type="checkbox"/>
3. Structure		
3.1 Are all floors and traffic routes suitable for purpose of use?	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Are measures taken to ensure there are no dangerous holes, slopes and uneven or slippery surfaces?	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Is effective means of floor drainage installed, where necessary?	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Are all floors and traffic routes kept free from obstruction?	<input type="checkbox"/>	<input type="checkbox"/>
3.5 Are hand rails and guards provided on staircases?	<input type="checkbox"/>	<input type="checkbox"/>
3.6 Are measures taken to prevent: <ul style="list-style-type: none"> • a person falling a distance likely to cause injury? • any person being struck by a falling object? 	<input type="checkbox"/>	<input type="checkbox"/>
3.7 Are areas where above risks could arise suitably marked?	<input type="checkbox"/>	<input type="checkbox"/>
3.8 Are tanks, pits and other structures, where a person could fall into a dangerous substance, securely covered or fenced?	<input type="checkbox"/>	<input type="checkbox"/>
3.9 Are traffic routes over, across or in an uncovered tank, pit or structure securely fenced?	<input type="checkbox"/>	<input type="checkbox"/>
3.10 Are windows, transparent or translucent surfaces in walls, partitions, doors and gates of safety material and suitably marked?	<input type="checkbox"/>	<input type="checkbox"/>
3.11 Do all windows, skylights and ventilators open in a safe manner?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Workplaces (Continued)

	Yes	No
3.12 Are windows and skylights designed or constructed to ensure safe cleaning?	<input type="checkbox"/>	<input type="checkbox"/>
3.13 Are devices installed to enable the safe cleaning of windows and skylights?	<input type="checkbox"/>	<input type="checkbox"/>
3.14 Can pedestrians and vehicles circulate in a safe manner?	<input type="checkbox"/>	<input type="checkbox"/>
3.15 Are all traffic routes: <ul style="list-style-type: none"> • suitable for the persons or vehicles using them? • sufficient in number? • in suitable positions? • of sufficient size? 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3.16 Are all traffic routes suitably indicated?	<input type="checkbox"/>	<input type="checkbox"/>
3.17 All doors and gates suitably constructed and fitted with any necessary safety devices?	<input type="checkbox"/>	<input type="checkbox"/>
3.18 Are all escalators and moving walkways: <ul style="list-style-type: none"> • functioning safely? • equipped with necessary safety devices? • fitted with easily identifiable and readily accessible stop controls? 	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4. Welfare amenity provisions		
4.1 Are suitable and sufficient sanitary conveniences provided at readily accessible places?	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Are sanitary convenience areas: <ul style="list-style-type: none"> • adequately ventilated and well lit? • kept in a clean and orderly condition? 	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
4.3 Are separate sanitary convenience areas provided for men and women?	<input type="checkbox"/>	<input type="checkbox"/>
4.4 Are suitable and sufficient washing facilities, including showers, provided at readily accessible places?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Workplaces (*Continued*)

	Yes	No
4.5 Are washing facilities:		
• provided in the immediate vicinity of every sanitary convenience?	<input type="checkbox"/>	<input type="checkbox"/>
• provided in the vicinity of changing rooms?	<input type="checkbox"/>	<input type="checkbox"/>
• provided with a supply of clean hot and cold water, or warm water?	<input type="checkbox"/>	<input type="checkbox"/>
• provided with soap and other means of cleaning?	<input type="checkbox"/>	<input type="checkbox"/>
• provided with towels or other suitable means of drying?	<input type="checkbox"/>	<input type="checkbox"/>
• sufficiently ventilated and well lit?	<input type="checkbox"/>	<input type="checkbox"/>
• kept in a clean and orderly condition?	<input type="checkbox"/>	<input type="checkbox"/>
4.6 Are separate washing facilities provided for men and women?	<input type="checkbox"/>	<input type="checkbox"/>
4.7 Is an adequate supply of drinking water provided and:		
• readily accessible at suitable places?	<input type="checkbox"/>	<input type="checkbox"/>
• conspicuously marked?	<input type="checkbox"/>	<input type="checkbox"/>
4.8 Are cups or drinking vessels provided, unless the water supply is in a jet?	<input type="checkbox"/>	<input type="checkbox"/>
4.9 Is suitable and sufficient accommodation provided:		
• for clothing not worn during working hours?	<input type="checkbox"/>	<input type="checkbox"/>
• for special clothing worn only at work?	<input type="checkbox"/>	<input type="checkbox"/>
4.10 Does the clothing accommodation:		
• provide suitable security for clothes not worn at work?	<input type="checkbox"/>	<input type="checkbox"/>
• include, where necessary, separate accommodation for clothing worn at work and for other clothing?	<input type="checkbox"/>	<input type="checkbox"/>
• include facilities for drying clothing?	<input type="checkbox"/>	<input type="checkbox"/>
4.11 Is clothing accommodation in a suitable location?	<input type="checkbox"/>	<input type="checkbox"/>
4.12 Are suitable and sufficient facilities provided for changing clothing:		
• where workers have to wear special clothing for work?	<input type="checkbox"/>	<input type="checkbox"/>

(Continued)

Workplaces (*Continued*)

	Yes	No
<ul style="list-style-type: none"> • where, for reasons of health or propriety, workers cannot be expected to change elsewhere? 	<input type="checkbox"/>	<input type="checkbox"/>
4.13 Are separate facilities, or the separate use of facilities, provided for men and women?	<input type="checkbox"/>	<input type="checkbox"/>
4.14 Are suitable and sufficient rest facilities provided at readily accessible places?	<input type="checkbox"/>	<input type="checkbox"/>
4.15 Do rest facilities include suitable facilities to eat meals where food eaten in the workplace would be likely to become contaminated?	<input type="checkbox"/>	<input type="checkbox"/>
4.16 Do rest facilities include suitable arrangements to protect non-smokers from discomfort caused by tobacco smoke?	<input type="checkbox"/>	<input type="checkbox"/>
4.17 Are suitable rest facilities provided for pregnant women and nursing mothers?	<input type="checkbox"/>	<input type="checkbox"/>
4.18 Are suitable and sufficient facilities provided for persons at work to eat meals?	<input type="checkbox"/>	<input type="checkbox"/>

PART 3

Health and Safety Information

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3(a)

Tables and figures

Accident indices.

$$\text{Frequency rate} = \frac{\text{Total number of accidents}}{\text{Total number of man-hours worked}} \times 10\,000$$

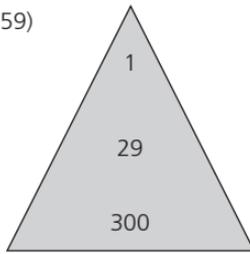
$$\text{Incidence rate} = \frac{\text{Total number of accidents}}{\text{Number of persons employed}} \times 1000$$

$$\text{Severity rate} = \frac{\text{Total number of days lost}}{\text{Total number of man-hours worked}} \times 1000$$

$$\text{Mean duration rate} = \frac{\text{Total number of days lost}}{\text{Total number of accidents}}$$

$$\text{Duration rate} = \frac{\text{Number of man-hours worked}}{\text{Total number of accidents}}$$

Heinrich (1959)

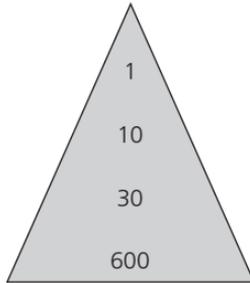


Major or lost time injury

Minor injuries

Non-injury accidents

Bird (1966)



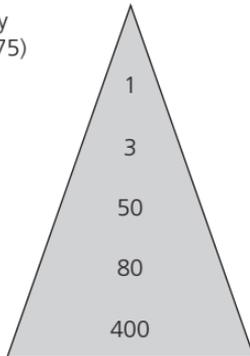
Serious injury

Minor injuries

Property damage

Incidents

British Safety Council (1975)



Fatal/serious injury

3-day lost time injuries

First aid injuries

Property damage

Near misses

Health and Safety Executive (1993)



Over 3-day injury

Minor injuries

Non-injury accidents

Accident ratios.

Airborne contaminants: comparison of particle size ranges.

Contaminant	Particle size range (microns)	Characteristics
Dust	0.1–75.0	Generated by natural fragmentation or mechanical cutting or crushing of solids e.g. wood, rock, coal, metals, etc. <i>Grit</i> particles, usually to be considered above 75 microns, are unlikely to remain airborne
Fume	0.001–1.0	Small solid particles of condensed vapour, especially metals, as in welding or metal melting processes. Often agglomerate into larger particles as the smaller particles collide
Smoke	0.01–1.0	Aerosol formed by incomplete combustion of organic matter; does not include ash e.g. fly ash
Mist	0.01–10.0	Aerosol of droplets formed by condensation from the gaseous state or as dispersion of a liquid state e.g. hot open surface tank processes, electroplating
Vapour	0.005	Gaseous state of materials that are liquid or solid at normal room temperature and pressure e.g. solvent vapours
Gas	0.0005	Materials which do not normally exist as liquids or solids at normal room temperature and pressure

Air changes per hour (comfort ventilation).

Location	Summer	Winter
Offices	6	4
Corridors	4	2
Amenity areas	6	4
Storage areas	2	2
Production areas (with heat-producing plant)	20	20
Production areas (assembly, finishing work)	6	6
Workshops	6	4

Average illuminances and minimum measured illuminances.

General activity	Typical locations/ types of work	Average illuminance (lux (Lx))	Minimum measured illuminance (lux (Lx))
Movement of people, machines and vehicles (1)	Lorry parks, corridors circulation routes	20	5
Movement of people, machines and vehicles in hazardous areas; rough work not requiring any perception of detail (1)	Construction site clearance excavation and soil work, docks, loading bays, bottling and canning plants	50	20
Work requiring limited perception of detail (2)	Kitchens, factories assembling large components, potteries	100	50
Work requiring perception of detail (2)	Offices, sheet metal work, bookbinding	200	100
Work requiring perception of fine detail (2)	Drawing offices, factories assembling electronic components, textile production	500	200

Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations 2002.

Category	Property (see Note 1)	Symbol letter
<i>Physico-chemical properties</i>		
Explosive	Solid, liquid, pasty or gelatinous substances and preparations which may react exothermically without atmospheric oxygen thereby quickly evolving gases, and which under defined test conditions detonate, quickly deflagrate or upon heating explode when partially confined	E
Oxidising	Substances and preparations which give rise to an exothermic reaction in contact with other substances, particularly flammable substances	O
Extremely flammable	Liquid substances and preparations having an extremely low flash point and a low boiling point and gaseous substances and preparations which are flammable in contact with air at ambient temperature and pressure	F+
Highly flammable	The following substances and preparations, namely: <ul style="list-style-type: none"> (a) substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy (b) solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition (c) liquid substances and preparations having a very low flash point (d) substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities (see Note 2) 	F

(Continued)

Categories of danger (Continued)

Category	Property (see Note 1)	Symbol letter
Flammable	Liquid substances and preparations having a low flash point	None
<i>Health effects</i>		
Very toxic	Substances and preparations which <i>in very low quantities</i> can cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin	T+
Toxic	Substances and preparations which in <i>low quantities</i> can cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin	T
Harmful	Substances and preparations which may cause death or acute or chronic damage to health when inhaled, swallowed or absorbed via the skin	Xn
Corrosive	Substances and preparations which may, on contact with living tissue, destroy them	C
Irritant	Non-corrosive substances and preparations which through immediate, prolonged or repeated contact with the skin or mucous membrane, may cause inflammation	Xi
Sensitising	Substances and preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction by hypersensitisation such that on further exposure to the substance or preparation, characteristic adverse effects are produced	
Sensitising by inhalation		Xn
Sensitising by skin contact		Xi
Carcinogenic (see Note 3)	Substances and preparations which, if they are inhaled or ingested or if they	

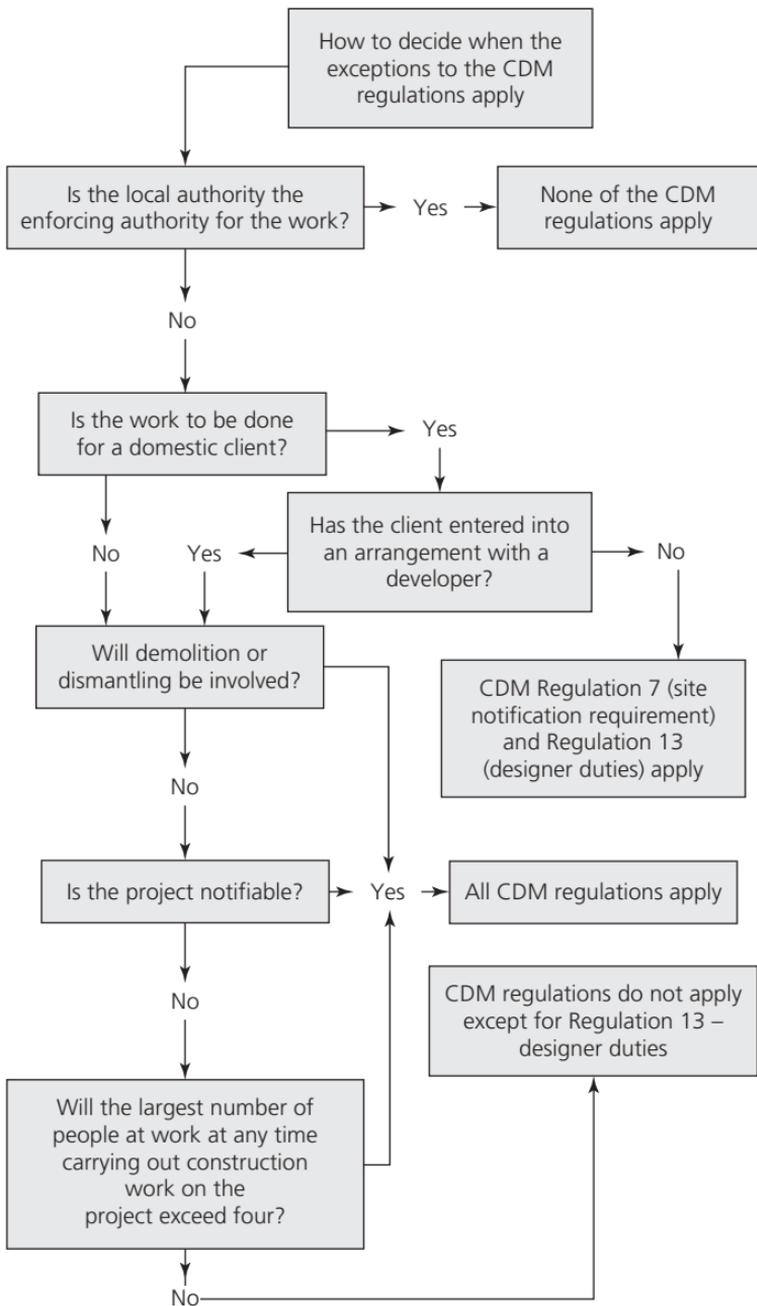
(Continued)

Categories of danger (*Continued*)

Category	Property (see Note 1)	Symbol letter
	penetrate the skin, may induce cancer or increase its incidence	
Category 1		T
Category 2		T
Category 3		Xn
Mutagenic (see Note 3)	Substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce heritable genetic defects or increase their incidence	
Category 1		T
Category 2		T
Category 3		Xn
Toxic for reproduction	Substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may produce or increase the incidence of non-heritable adverse effects in the progeny and/or impairment of male or female reproductive functions or capacity	
Category 1		T
Category 2		T
Category 3		Xn
Dangerous for the environment (see Note 4)	Substances which, were they to enter into the environment, would or might present an immediate or delayed danger for one or more components of the environment	N

Notes

- As further described in the *approved classification and labelling guide* (p. 47)
- Preparations packed in *aerosol dispensers* shall be classified as *flammable* in accordance with the additional criteria set out in Part II of this Schedule
- The categories are specified in the *approved classification and labelling guide*
- (a) In certain cases specified in the *approved supply list* and in the *approved classification and labelling guide* as substances classified as *dangerous for the environment* do not require to be labelled with the symbol for this category of danger
 (b) This category of danger does not apply to preparations.



Construction (Design and Management) Regulations 1994 – How to decide when the exceptions to the CDM regulations apply.

Decibels (addition of).

Difference (dB)	Add to higher (dB)
0–0.5	3.0
1.0–1.5	2.5
2.0–3.0	2.0
3.5–4.5	1.5
5.0–7.0	1.0
7.5–12.0	0.5
Over 12.0	0

Demolition methods (Demolition – BS 6187: 1982 A guide to typical methods of demolition).

Type of structure	Type of construction	Method of demolition			
		Detached building isolated site	Detached building confined site	Attached building isolated site	Attached building confined site
Small and medium two-storey building	Loadbearing walls	ABCDM	ABDM	ABDM	ADM
Large buildings three storeys and over	Loadbearing walls	ABDM	ABDM	ABDM	AD
	Loadbearing walls with wrought iron and cast iron members	ABDM	AM	AM	AM
Framed structures	Structural steel	ACM	AM	AM	AM
	<i>In situ</i> reinforced concrete	ADM	ADM	ADM	AM
	Pre-cast reinforced concrete	ADM	ADM	ADM	AM
	Prestressed reinforced concrete	ADM	ADM	ADM	AM
	Composite (structural steel and reinforced concrete)	ADM	ADM	ADM	AM
Independent cantilevers (canopies, balconies and staircases)	Timber	ABCDM	ABDM	ABDM	ABDM
		ADM	ADM	ADM	ADM

Bridges		ABCDM	ABCDM	AM	AM
Masonry arches		ACDM	ACDM	ACDM	ACDM
Chimneys	Brick or masonry	ACD	A	ACD	A
	Steel	AC	A	A	A
	<i>In situ</i> and precast reinforced concrete	AD	A	A	A
	Reinforced plastics	AC	A	A	A
Spires		ACD	A	A	A
Pylons and masts		AC	A		
Petroleum tanks (underground)					
Above ground storage tanks					
Chemical works and similar establishments					
Basements					
Special structures					

Note 1

This table is a general guide to the methods of demolition usually adopted in particular circumstances. In addition, subject to local restraints, explosives may be used by experienced personnel in many of the circumstances listed. The indication of a particular method does not necessarily preclude the use of another method, or the use of several methods in combination.

Note 2 Legend

A: hand demolition; B: mechanical demolition by pusher; C: mechanical demolition by deliberate collapse; D: mechanical demolition by demolition ball; M: demolition by other mechanical means excluding wire pulling.

Electromagnetic spectrum.

Radiation	Frequency	Wavelength	Energy	Radiation sources
Gamma	10^{21}	Short	High	Cosmic sources Atoms struck by high energy particles Excited gases
X-ray	10^{18}			
Ultraviolet light				
Visible light	10^{15}			Hot bodies
Infrared	10^{12} – 10^{14}			Hot bodies
Microwaves	10^9			Microwave
Radio waves	-10^6	Long	Low	Radio transmitter

Fire instruction notice.

When the fire alarm sounds

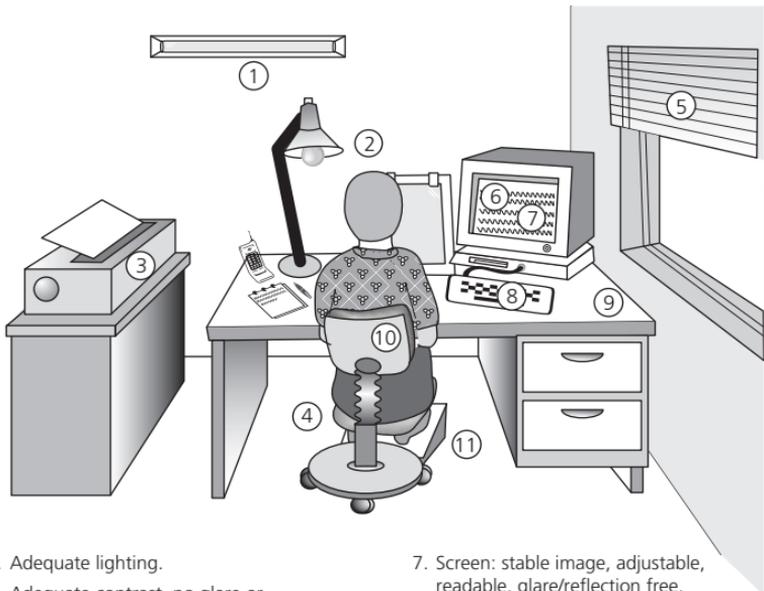
1. Close the windows, switch off electrical equipment and leave the room closing the door behind you.
2. Walk quickly along the escape route to the open air.
3. Report to the fire warden at your assembly point.
4. Do not attempt to re-enter the building.

When you find a fire

1. Raise the alarm by.
(If the telephone is used, the notice must include a reference to name and location.)
2. Leave the room, closing the door behind you.
3. Leave the building by the escape route.
4. Report to the fire warden at the assembly point.
5. Do not attempt to re-enter the building.

Hazardous substances that can be revealed by medical analysis.

Substance	Technique
Benzene	Phenol in urine; benzene in breath
Inorganic lead	Lead in blood/urine; coproporphyrin in urine
Elemental mercury/ inorganic mercury	Mercury in urine; protein in urine
Methyl mercury	In faeces
Arsenic	In urine, hair, nails
Calcium	In blood, urine
Trichlorethylene	In urine as trichloroacetic acid
Organo-phosphorus compounds	Cholinesterase in blood/urine; nerve conduction velocity; electromyography



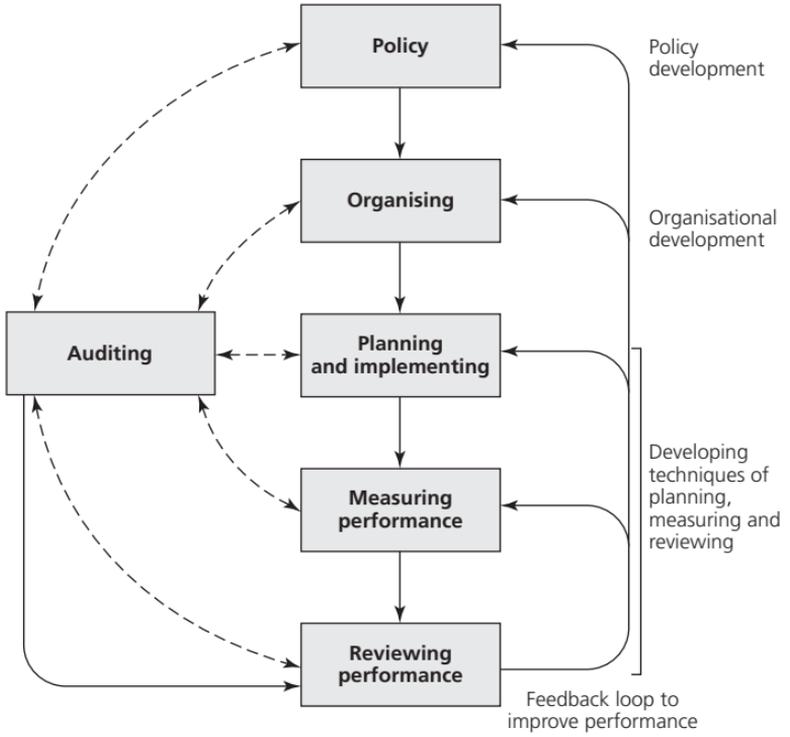
1. Adequate lighting.
2. Adequate contrast, no glare or distracting reflections.
3. Distracting noise minimised.
4. Legroom clearances to allow postural changes.
5. Window covering.
6. Software: appropriate to task, adapted to user, provides feedback on system status, no undisclosed monitoring.
7. Screen: stable image, adjustable, readable, glare/reflection free.
8. Keyboard: useable, adjustable, detachable, legible.
9. Work surface: allow flexible arrangements, spacious, flare-free.
10. Work chair: adjustable.
11. Foot rest.

Health and Safety (Display Screen Equipment) Regulations 1992.
(a) Display screen equipment workstation – design and layout.

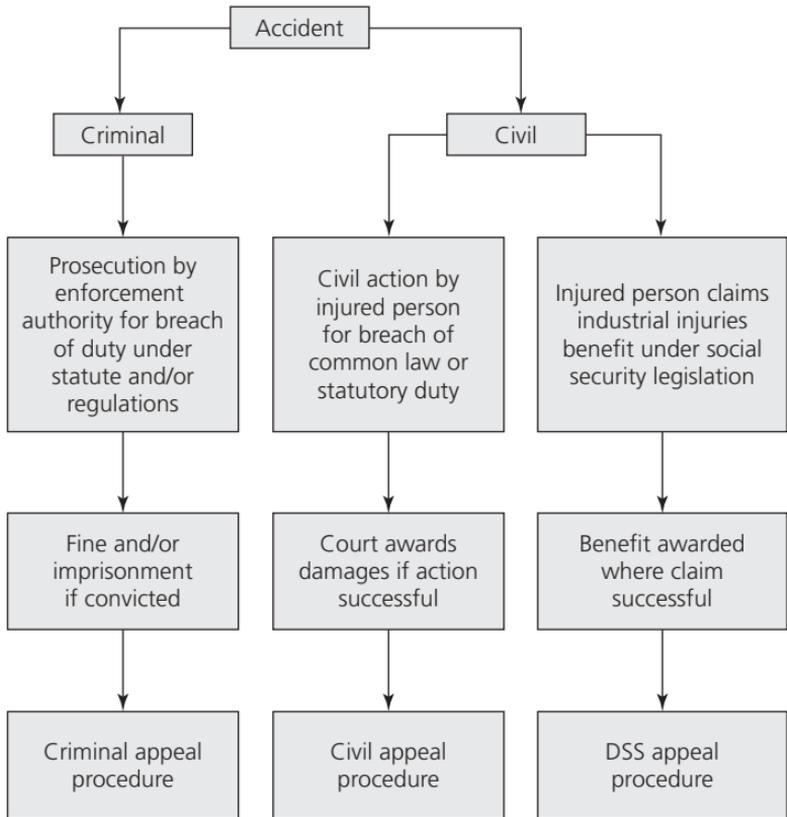


1. Seat back adjustability.
2. Good lumbar support.
3. Seat height adjustability.
4. No excess pressure on underside of thighs and back of knees.
5. Foot supported if needed.
6. Space for postural change, no obstacles under desk.
7. Forearms approximately horizontal.
8. Minimal extension, flexion or deviation of wrists.
9. Screen height and angle should allow comfortable head position.
10. Space in front of keyboard to support hands/wrists during pauses in keying

Health and Safety (Display Screen Equipment) Regulations 1992.
(b) Seating and posture for typical office tasks.



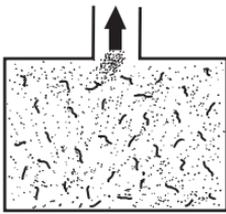
Key elements of successful health and safety management.



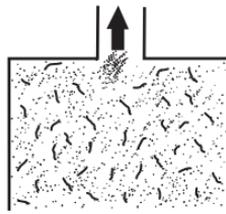
Legal routes following an accident at work.

Local exhaust ventilation (LEV) systems.

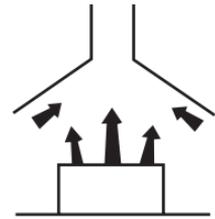
Receptor systems



Total enclosure

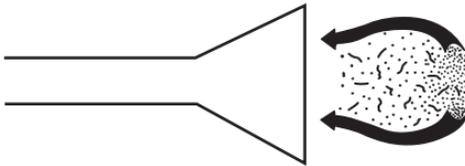


Partial enclosure



Receptor hood

Captor systems

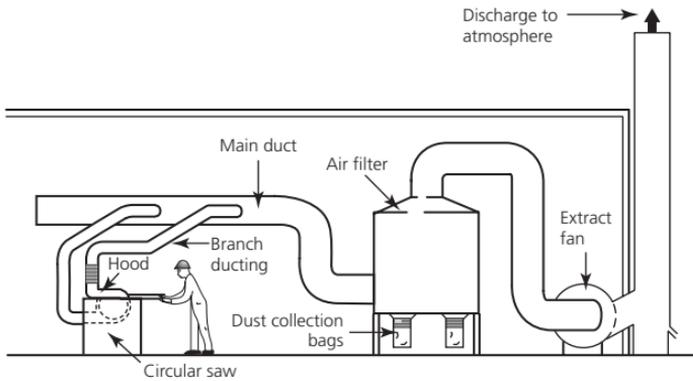


Side draught captor hood



Down draught captor hood

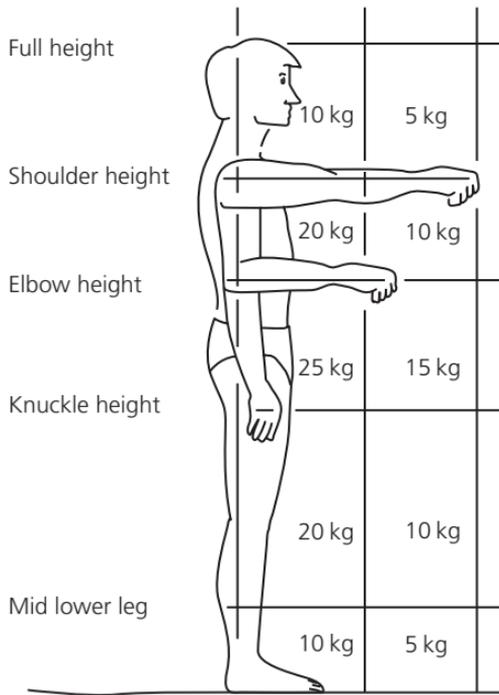
Typical LEV system (Woodcutting machinery)



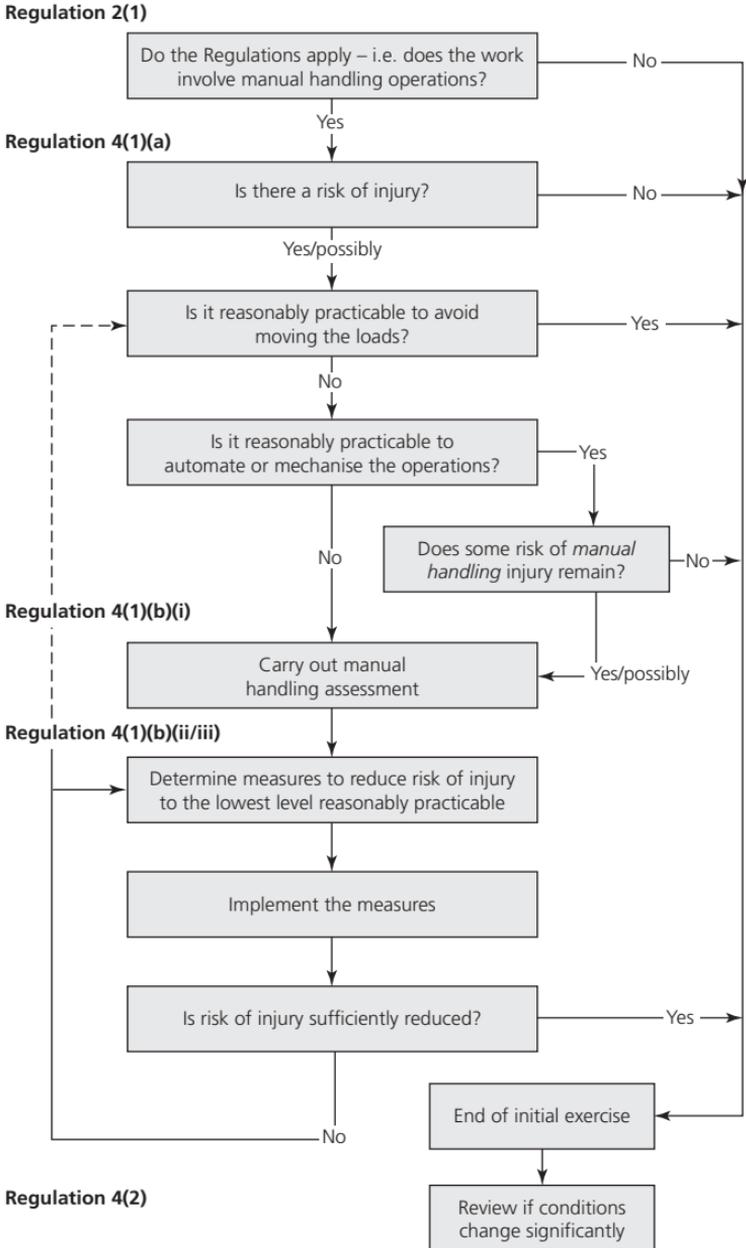
If the hands enter MORE THAN ONE of the box zones during the operation, the SMALLEST weight figure should be used.

The transition from one box zone to another is not abrupt; an INTERMEDIATE figure may be chosen where the hands are close to a boundary.

Where lifting or lowering with the hands BEYOND the box zones is UNAVOIDABLE, a more detailed assessment should be made.



Manual handling – lifting and lowering.



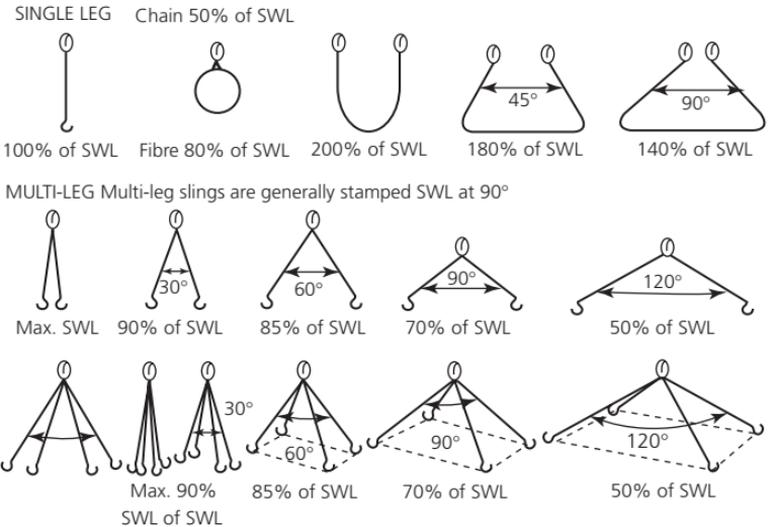
Manual handling operations regulations – flow chart.

Maximum permissible wet globe temperatures.

Work:rest schedule (per hour)	Work load		
	Light	Moderate	Heavy
Continuous work	30.0°C	26.7°C	25.0°C
75% work:25% rest	30.6°C	28.0°C	25.9°C
50% work:50% rest	31.4°C	29.4°C	27.9°C
25% work:75% rest	32.2°C	31.1°C	30.0°C

Maximum ratios of illuminance for adjacent areas.

Situation to which recommendation applies	Typical location	Maximum ratio of illuminances	
		Working area	Adjacent area
Where each task is individually lit and the area around the task is lit to a lower illuminance	Local lighting in an office	5	1
Where two working areas are adjacent, but one is lit to a lower illuminance than the other	Localised lighting in a works store	5	1
Where two working areas are lit to different illuminances but are separated by a barrier and there is frequent movement between them	A storage area inside a factory and a loading bay outside	10	1

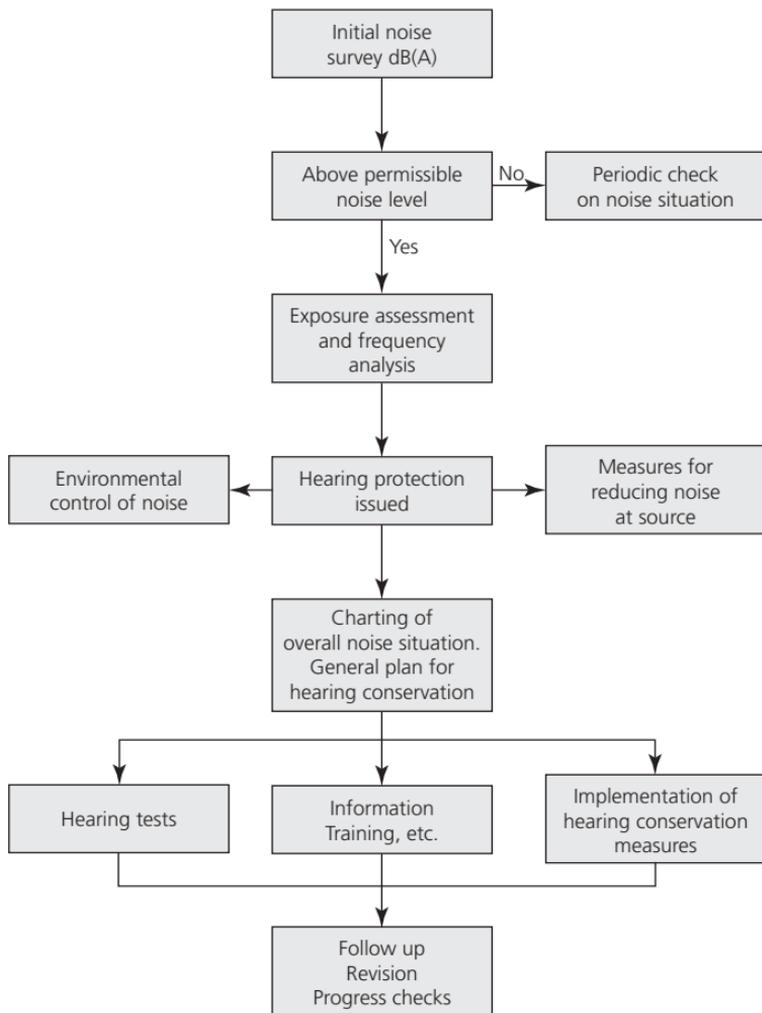


Select the correct size of a sling for the load taking into account the included angle and the possibility of unequal loading in the case of multi-leg slings

Maximum safe working loads for slings at various angles.

Noise control methods.

Sources and pathways	Control measures
Vibration produced through machinery operation	Reduction at source
Structure-borne noise (vibration)	Vibration isolation, e.g. resilient mounts and connections, anti-vibration mounts
Radiation of structural vibration	Vibration damping to prevent resonance
Turbulence created by air or gas flow	Reduction at source or use of silencers
Airborne noise pathway	Noise insulation – reflection; heavy barriers Noise absorption – no reflection; porous lightweight barriers



Noise control programme – typical structure.

Octave bands (standard range).

Limits of band (Hz)	Geometric centre frequency (Hz)
45–90	63
90–180	125
180–355	250
355–710	500
710–1400	1000
1400–2800	2000
2800–5600	4000
5600–11200	8000

Optimum working temperatures.

Type of work	Optimum temperatures (°C)
Sedentary/office work	
Comfort range	19.4–22.8
Light work	
Optimum temperature	18.3
Comfort range	15.5–20.0
Heavy work	
Comfort range	12.8–15.6

Personal Protective Equipment at Work Regulations 1992 – Specimen risk survey table for the use of personal protective equipment.

			Risks																					
			The PPE at Work Regulations 1992 apply except where the Construction (Head) Protection Regulations 1989 apply								The CLW, IRR, CAW, COSHH and NAW Regulations ⁽¹⁾ will each apply to the appropriate hazard													
			Mechanical					Thermal																
			Falls from a height	Blows, cuts, impact, crushing	Stabs, cuts, grazes	Vibration	Slipping, falling over	Scalds, heat, fire	Cold	Immersion	Non-ionising radiation	Electrical	Noise	Ionising radiation	Dust fibre	Fume	Vapours	Splashes, spurts	Gases, vapours	Harmful bacteria	Harmful viruses	Fungi	Non-micro biological antigens	
P A R T S of the B O D Y	Head	Cranium																						
		Ears																						
		Eyes																						
		Respiratory tract																						
		Face																						
		Whole head																						
	Upper limbs	Hands																						
		Arms (parts)																						
	Lower limbs	Foot																						
		Legs (parts)																						
	Various	Skin																						
		Trunk/abdomen																						
Whole body																								

(1) The Control of Lead at Work Regulations 1980, The Ionising Radiations Regulations 1985, The Control of Asbestos at Work Regulations 1987, The Control of Substances Hazardous to Health Regulations 1988, The Noise at Work Regulations 1989.

Places of work requiring inspection by a competent person under (Regulation 29(1) of the Construction (Health, Safety and Welfare) Regulations 1996.

Place of work	Time of inspection
1. Any working platform or part thereof or any personal suspension equipment provided pursuant to paragraph 3(b) or (c) of Regulation 6	1. (i) Before being taken into use for the first time; and (ii) after any substantial addition, dismantling or other alteration; and (iii) after any event likely to have affected its strength or stability; and (iv) at regular intervals not exceeding seven days since the last inspection
2. Any excavation which is supported pursuant to paragraphs 1, 2 or 3 of Regulation 12	2. (i) Before any person carries out work at the start of every shift; and (ii) after any event likely to have affected the strength or stability of the excavation or any part thereof; and (iii) after any accidental fall of rock or earth or other material
3. Cofferdams and caissons	3. (i) Before any person carries out work at the start of every shift; and (ii) after any event likely to have affected the strength or stability of the cofferdam or caisson or any part thereof

Probability index.

Probability index	Descriptive phrase
10	Inevitable
9	Almost certain
8	Very likely
7	Probable
6	More than even chance
5	Even chance
4	Less than even chance
3	Improbable
2	Very improbable
1	Almost impossible

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 – reporting requirements.

Reportable event	Person affected	Responsible person
<i>1. Special cases</i>		
All reportable events in mines		The mine manager
All reportable events in quarries or in closed mine or quarry tips		The owner
All reportable events at offshore installations, except cases of disease reportable under Regulation 5		The owner, in respect of a mobile installation, or the operator in respect of a fixed installation (under these regulations the responsibility extends to reporting incidents at sub-sea installations, except tied back wells and adjacent pipeline)
All reportable events at diving installations, except cases of disease reportable under Regulation 5		The diving contractor
<i>2. Injuries and disease</i>		
Death, major injury, over 3-day injury, or case of disease connected with diving operations and work at an offshore installation	An employee at work	That person's employer
	A self-employed person at work in premises under the control of someone else	The person in control of the premises: <ul style="list-style-type: none"> • at the time of the event • in connection with the carrying on of any trade, business or undertaking
Major injury, over 3-day injury or case of disease	A self-employed person at work in premises under their control	The self-employed person or someone acting on his behalf

(Continued)

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 – reporting requirements (*Continued*).

Reportable event	Person affected	Responsible person
Death or injury requiring removal to a hospital for treatment (or major injury occurring at a hospital)	A person who is not at work (but is affected by the work of someone else) e.g. a member of the public, student, a resident of a nursing home	The person in control of the premises where, or in connection with the work going on at which, the accident causing the injury happened: <ul style="list-style-type: none"> • at the time of the event • in connection with their carrying on of any trade, business or undertaking
<p>3. <i>Dangerous occurrences</i></p> <p>One of the dangerous occurrences listed in Schedule 2 to the regulations, except</p> <ul style="list-style-type: none"> • where they occur at workplaces covered by Part 1 of this Table (i.e. mines, quarries, closed mine or quarry tips, offshore installations or connected with diving operations); or • those covered below 		The person in control of the premises where, or in connection with the work going on at which, the dangerous occurrence happened: <ul style="list-style-type: none"> • at the time the dangerous occurrence happened, and • in connection with their carrying on trade, business or undertaking
A dangerous occurrence at a well		The concession owner (the person having the right to exploit or explore mineral resources and store and recover gas in any area, if the well is used or is to be used to exercise that right) or the person appointed by the concession owner to organise or supervise any operation carried out by the well
A dangerous occurrence at a pipeline but not a dangerous occurrence connected with pipeline works		The owner of the pipeline
A dangerous occurrence involving a dangerous substance being conveyed by road		The operator of the vehicle

Safety data sheets – obligatory headings (CHIP Regulations).

1. Identification of the substance or preparation
 2. Composition/information on ingredients
 3. Hazard identification
 4. First Aid measures
 5. Fire-fighting measures
 6. Accidental release measures
 7. Handling and storage
 8. Exposure controls/Personal protection
 9. Physical and chemical properties
 10. Stability and reactivity
 11. Toxicological information
 12. Ecological information
 13. Disposal considerations
 14. Transport information
 15. Regulatory information
 16. Other information
-

Safety signs.

Meaning or purpose	Safety colour	Examples of use	Contrasting colour (if required)		Symbol
Stop Prohibition	Red	STOP signs; prohibition signs identification of emergency shutdown devices	White	Black	 No smoking
Caution Risk of danger	Yellow	Warning signs e.g. electric current on, harmful vapours, obstacle ahead, scaffold incomplete, asbestos	Black	Black	 Explosive
Mandatory action	Blue	Obligation to wear personal protective equipment e.g. eye protection; report damage immediately; keep out; switch off machine when not in use	White	White	 Ear protection must be worn
Safe condition	Green	Identification of first aid posts, safety showers, fire exits	White	White	 Means of Escape

Severity index.

Severity index	Descriptive phrase
10	Death
9	Permanent total incapacity
8	Permanent severe incapacity
7	Permanent slight incapacity
6	Absent from work for more than 3 weeks with subsequent recurring incapacity
5	Absent from work for more than 3 weeks but with subsequent complete recovery
4	Absent from work for more than 3 days but less than 3 weeks with subsequent complete recovery
3	Absent from work for less than 3 days with complete recovery
2	Minor injury with no lost time and complete recovery
1	No human injury expected

The total working system – areas of study.

<i>Human characteristics</i>	<i>Environmental factors</i>
Body dimensions	Temperature
Strength	Humidity
Physical and mental limitations	Light
Stamina	Ventilation
Learning	Noise
Perception	Vibration
Reaction	
<i>Man-machine interface</i>	<i>Total working system</i>
Displays	Fatigue
Controls	Work rate
Communications	Posture
Automation	Stress
	Productivity
	Accidents
	Safety

Water closets and urinals for men (ACOP to Workplace (Health, Safety and Welfare) Regulations 1992).

Number of men at work	Number of water closets	Number of urinals
1-15	1	1
16-30	2	1
31-45	2	2
46-60	3	2
61-75	3	3
76-90	4	3
91-100	4	4

Water closets and wash station provision (ACOP to Workplace (Health, Safety and Welfare) Regulations 1992).

Number of people at work	Number of water closets	Number of wash stations
1-5	1	1
6-25	2	2
26-50	3	3
51-75	4	4
75-100	5	5

3(b) Forms

Accident book entry

Report Number

ACCIDENT RECORD

1 About the person who had the accident

Name:

Address:

..... Postcode:

Occupation:

2 About you, the person filling in this record

▼ If you did not have the accident write your address and occupation

Name:

Address:

..... Postcode:

Occupation:

3 About the accident: *Continue on the back of this form if you need to*

▼ Say when it happened Date: Time:

▼ Say where it happened. State which room or place

▼ Say how the accident happened. Give the case if you can

.....

.....

.....

▼ If the person who had the accident suffered an injury, say what it was

.....

▼ Please sign the record and date it

.....

Signature: Date:

4 For the employer only

▼ Complete this box if the accident is reportable under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR).

How was it reported?

.....

Date reported / / Signature

.....

6 Local Authority: name of the local government district council or island council within whose district the operations are to be carried out

7 Please give your estimates on the following: Please indicate if these estimates revised (tick relevant box) are original

a. The planned date for the commencement of the construction work

b. How long the construction work is expected to take (in weeks).

c. The maximum number of people carrying out construction work on site at any one time

d. The number of contractors expected to work on site

8 Construction work: give brief details of the type of construction work that will be carried out

9 Contractors: name full address and postcode or those who have been chosen to work on the project (if required continue on a separate sheet). (Note this information is only required when it is known at the time notification is first made to HSE, An update is not required)

Declaration of planning supervisor

10 I hereby declare that (name of organisation) has been appointed as planning supervisor for the project

Signed by or on behalf of the organisation (print name)

Date

Declaration of principal contractor

11 I hereby declare that (name of principal contractor) has been appointed as principal contractor for the project (or contractor undertaking project for domestic client)

Signed by or on behalf of the organisation (print name)

Date

**Control of Substances Hazardous to Health Regulations
2002 – Health Risk Assessment**

<p>This health risk assessment has been undertaken taking into account the supplier's safety data provided in accordance with the Chemicals (Hazard Information and Packaging for Supply) Regulations.</p> <p>Assessment No.:</p> <p>Location: Process/Activity/Use:</p>	
<p>Substance information:</p> <p>Name of substance: Chemical composition:</p> <p>Supplier:</p>	
<p>Risk information</p> <p>Risk classification: Stated occupational exposure limits</p> <p>Toxic/Corrosive/Harmful/Irritant WEL LTEL STEL</p>	
<p>Route(s) of entry Acute/Chronic/Local/Systemic</p> <p>Exposure situations</p> <p>Exposure effects</p> <p>Estimate of potential exposure Frequency of use</p> <p>.....</p> <p>Quantities used Duration of use</p>	
<p>Storage requirements</p>	

(Continued)

Health Risk Assessment (*continued*)

Air monitoring requirements and standards
First aid requirements
Health surveillance requirements
Routine disposal requirements
<p>Procedure in the event of spillage:</p> <p>1. Small scale spillage</p> <p>.....</p> <p>2. Large scale spillage</p> <p>.....</p>
Information, instruction and training requirements/arrangements
<p>General conclusions as to risk</p> <p>High/Medium/Low risk</p> <p>Special precautions</p> <p>.....</p> <p>Supervision requirements</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

Health Risk Assessment Summary

General comments as to extent of health risk
Action
1. Immediate action
2. Short term action (7 days)
3. Medium term action (3 months)
4. Long term action (12 months)
Date of reassessment:/...../.....
Assessor: Date:/...../.....

Hazard report form**HAZARD REPORT****1. Report** (to be completed by person reporting hazard)

Date: Time: Department:

Reported to: (Verbal) (Written)

Description of hazard (including location, plant, machinery, practice, etc.)

Signature: Position:

2. Action (to be completed by Departmental Manager/Supervisor)

Hazard verified YES/NO Date: Time:

Remedial action (including changes in systems of work)

Action to be taken by: Name: Signature:

*Priority Rating 1 2 3 4 5 Estimated cost:

Completion: Date:

Interim precautions

Signature: (Departmental Manager)

3. Financial approval (to be completed by senior manager where cost exceeds departmental authority)

The expenditure necessary to complete the above work is approved.

Signature: Date:

4. Completion The remedial action described above is complete.

Actual cost:

Date: Signature:

(Persons completing the work)

5. Safety Adviser's check I have checked completion of the above work and confirm that the hazard has been eliminated/controlled

Date: Signature:

* **Priority Ratings** 1 – immediate; 2 – 48 hours; 3 – 1 week; 4 – 1 month; 5 – 3 months

Improvement notice

HEALTH AND SAFETY EXECUTIVE

Serial No. 1

Health and Safety at Work etc. Act 1974, Sections 21, 23 and 24

IMPROVEMENT NOTICE

Name and address (See Section 46)	To
(a) Delete as necessary	(a) Trading as
(b) Inspector's full name	(b)
(c) Inspector's official designation	one of (c)
(d) Official address	of (d)
(e) Location of premises or place and activity Tel. No.
(f) Other specified capacity	hereby give you notice that I am of the opinion that at
(g) Provisions contravened	(e)
	you, as (a) an employer/a self employed person/a person wholly or partly in control of the premises
	(f)
	(a) are contravening/have contravened in circumstances that make it likely that the contravention will continue to be repeated.

	(g)

	The reasons for my said opinion are:

	and I hereby require you to remedy the said contraventions or, as the case may be, the matters occasioning them by
(h) Date	(h)
	(a) In the manner stated in the attached schedule which forms part of the notice.
	Signature: Date:
	Being an Inspector appointed by an Instrument in writing made pursuant to Section 19 of the said Act and entitled to issue this notice.
	(a) An Improvement notice is also being served on
	of
	related to the matters contained in this notice.

Job safety analysis record

Job title:

Department:

Purpose of job:

Machinery and equipment used:

Materials used:

Personal protective equipment required:

Machinery safety features (where appropriate):

Intrinsic hazards:

Degree of risk:

Work organisation:

Specific tasks:

Skills required:

Influences on behaviour:

Learning method:

Operation of the safe system of work:

Supervision requirements:

Date of next review:

Signed:

Date:

Manual handling of loads

EXAMPLE OF AN ASSESSMENT CHECKLIST

Note: This checklist may be copied freely. It will remind you of the main points to think about while you:

- consider the risk of injury from manual handling operations
- identify steps that can remove or reduce the risk
- decide your priorities for action.

SUMMARY OF ASSESSMENT Operations covered by this assessment: Locations: Personnel involved: Date of assessment:	Overall priority for remedial action: Nil/Low/Med/High* Remedial action to be taken: Date by which action is to be taken: Date for reassessment: Assessor's name: Signature:
---	--

*circle as appropriate

SECTION A – Preliminary:

- Q1 Do the operations involve a significant risk of injury?** **Yes/No***
 If 'Yes' go to Q2. If 'No' the assessment need go no further.
 If in doubt answer 'Yes'. You may find the guidelines in Appendix 1 helpful.
- Q2 Can the operations be avoided/mechanised/automated at reasonable cost?** **Yes/No***
 If 'No' go to Q3. If 'Yes' proceed and then check that the result is satisfactory.
- Q3 Are the operations clearly within the guidelines in Appendix 1?** **Yes/No***
 If 'No' go to Section B. If 'Yes' you may go straight to Section C if you wish.

SECTION C – Overall assessment of risk:

- Q What is your overall assessment of the risk of injury?** **Insignificant/Low/Med/High***
 If not 'Insignificant' go to Section D. If 'Insignificant' the assessment need go no further.

SECTION D – Remedial action:

- Q What remedial steps should be taken, in order of priority?**
- i
 ii
 iii
 iv
 v

And finally:

- complete the SUMMARY above
- compare it with your other manual handling assessments
- decide your priorities for action
- **TAKE ACTION** **AND CHECK THAT IT HAS THE DESIRED EFFECT**

(Continued)

Manual handling of loads (Continued)

SECTION B – More detailed assessment, where necessary:					
Questions to consider: (If the answer to a question is 'Yes' place a tick against it and then consider the level of risk)	Level of risk: (Tick as appropriate)				Possible remedial action: (Make rough notes in this column in preparation for completing Section D)
	YES	LOW	MED	HIGH	
The tasks – do they involve: <ul style="list-style-type: none"> ◆ holding loads away from trunk? ◆ twisting? ◆ stooping? ◆ reaching upwards? ◆ large vertical movement? ◆ long carrying distances? ◆ strenuous pushing or pulling? ◆ unpredictable movement of loads? ◆ repetitive handling? ◆ insufficient rest or recovery? ◆ a workrate imposed by a process? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
◆ heavy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
◆ bulky/unwieldy?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
◆ difficult to grasp?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
◆ unstable/unpredictable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
◆ intrinsically harmful (e.g. sharp/hot?)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
The working environment – are there: <ul style="list-style-type: none"> ◆ constraints on posture? ◆ poor floors? ◆ variations in levels? ◆ hot/cold/humid conditions? ◆ strong air movements? ◆ poor lighting conditions? 	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
◆ require unusual capability?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
◆ hazard those with a health problem?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
◆ hazard those who are pregnant?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
◆ call for special information/training?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Other factors: Is movement or posture hindered by clothing or personal protective equipment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Deciding the level of risk will inevitably call for judgement. The guidelines in Appendix 1 may provide a useful yardstick.					
When you have completed Section B go to Section C.					

Noise exposure record

Name and address of premises, department, etc. Date of survey: Survey made by:					
Workplace	Noise level	Daily	L_{EPd}	Peak pressure	Comments/
Number of	(Leq(s) or	exposure	dB(A)	(where	Remarks
persons	sound level)	period		appropriate)	
exposed					
General comments:					
Instruments used:					
.....					
Date of last calibration:					
Signature:				Date:	

(Noise at Work: Guide No.3: *Noise assessment, information and control*: HMSO, London)

Occupational health: (a) Pre-employment health questionnaire

Surname: **Forename:**

Date of Birth:

Address:

.....

Tel. No:

Occupation:

Position applied for:

Name and address of doctor:

.....

.....

SECTION A

Please tick if you are at present suffering from, or have suffered from:

- | | | | |
|------------------------------|--------------------------|-----------------------------|--------------------------|
| 1. Giddiness | <input type="checkbox"/> | 8. Stroke | <input type="checkbox"/> |
| Fainting attacks | <input type="checkbox"/> | Heart trouble | <input type="checkbox"/> |
| Epilepsy | <input type="checkbox"/> | High blood pressure | <input type="checkbox"/> |
| Fits or blackouts | <input type="checkbox"/> | Varicose veins | <input type="checkbox"/> |
| 2. Mental illness | <input type="checkbox"/> | 9. Diabetes | <input type="checkbox"/> |
| Anxiety or depression | <input type="checkbox"/> | 10. Skin trouble | <input type="checkbox"/> |
| 3. Recurring headaches | <input type="checkbox"/> | 11. Ear trouble or deafness | <input type="checkbox"/> |
| 4. Serious injury | <input type="checkbox"/> | 12. Eye trouble | <input type="checkbox"/> |
| Serious operations | <input type="checkbox"/> | Defective vision (not | <input type="checkbox"/> |
| 5. Severe hay fever | <input type="checkbox"/> | corrected by glasses or | |
| Asthma | <input type="checkbox"/> | contact lenses) | <input type="checkbox"/> |
| Recurring chest disease | <input type="checkbox"/> | Defective colour vision | <input type="checkbox"/> |
| 6. Recurring stomach trouble | <input type="checkbox"/> | 13. Back trouble | <input type="checkbox"/> |
| Recurring bowel trouble | <input type="checkbox"/> | Muscle or joint trouble | <input type="checkbox"/> |
| 7. Recurring bladder trouble | <input type="checkbox"/> | 14. Hernia/rupture | <input type="checkbox"/> |

(Continued)

Occupational health: (a) Pre-employment health questionnaire (*Continued*)

SECTION B

Please tick if you have any disabilities that affect:

- | | | | | | |
|----------------|--------------------------|-------------------|--------------------------|--------------------|--------------------------|
| Standing | <input type="checkbox"/> | Lifting | <input type="checkbox"/> | Working at heights | <input type="checkbox"/> |
| Walking | <input type="checkbox"/> | Use of your hands | <input type="checkbox"/> | Climbing ladders | <input type="checkbox"/> |
| Stair climbing | <input type="checkbox"/> | Driving a vehicle | <input type="checkbox"/> | Working on staging | <input type="checkbox"/> |

SECTION C

How many working days have you lost during the last three years due to illness or injury? days

Are you at present having any tablets, medicine or injections prescribed by a doctor? YES/NO

Are you a registered disabled person? YES/NO

SECTION D

Previous occupations	Duration	Name & address of employer
.....		
.....		
.....		

SECTION E

The answers to the above questions are accurate to the best of my knowledge.

I acknowledge that failure to disclose information may require re-assessment of my fitness and could lead to termination of employment.

Signature: Prospective employee Date:

Signature: Manager Date:

(Continued)

Occupational health (*Continued*)

**ADDITIONAL QUESTIONS TO BE ANSWERED BY ANY PROSPECTIVE
EMPLOYEE WHO WILL ENTER FOOD PRODUCTION AREAS OR
HANDLE FOOD IN THE COURSE OF HIS/HER EMPLOYMENT**

SECTION F

Please tick if you **have ever** suffered from:

- | | | | | | |
|----------------------|--------------------------|----------------------|--------------------------|-------------------------|--------------------------|
| Typhoid fever | <input type="checkbox"/> | A perforated | <input type="checkbox"/> | Recurring skin | <input type="checkbox"/> |
| Paratyphoid | <input type="checkbox"/> | ear drum | | condition | |
| fever | | A running ear | <input type="checkbox"/> | Hepatitis | <input type="checkbox"/> |
| Dysentery | <input type="checkbox"/> | Frequent | <input type="checkbox"/> | (liver disorder) | |
| Salmonella | <input type="checkbox"/> | sore throats | | Tuberculosis | <input type="checkbox"/> |

SECTION G

Please tick if you are **at present** suffering from:

- | | | | | | |
|-----------------------|--------------------------|-----------------------|--------------------------|---------------------------|--------------------------|
| Cough with | <input type="checkbox"/> | A running ear | <input type="checkbox"/> | Diarrhoea/vomiting | <input type="checkbox"/> |
| phlegm | | Raised | <input type="checkbox"/> | Boils | <input type="checkbox"/> |
| Abdominal pain | <input type="checkbox"/> | temperature | | Styes | <input type="checkbox"/> |
| Acne | <input type="checkbox"/> | Septic fingers | <input type="checkbox"/> | | |

SECTION H

When did you last visit your dentist? 19

If treatment is necessary are you willing to visit your dentist for treatment? YES/NO

Occupational health: (b) Health questionnaire

Tick as appropriate

1. Have you ever suffered from:

- | | | | | | |
|----------------|--------------------------|----------------|--------------------------|---------------------|--------------------------|
| Bronchitis | <input type="checkbox"/> | Repeated | <input type="checkbox"/> | Back pain | <input type="checkbox"/> |
| Pleurisy | <input type="checkbox"/> | sore throats | <input type="checkbox"/> | Varicose veins | <input type="checkbox"/> |
| Tuberculosis | <input type="checkbox"/> | Hernia | <input type="checkbox"/> | Pneumonia | <input type="checkbox"/> |
| Chest pain | <input type="checkbox"/> | Asthma | <input type="checkbox"/> | Shortness of breath | <input type="checkbox"/> |
| Enteritis | <input type="checkbox"/> | Cough | <input type="checkbox"/> | Diarrhoea | <input type="checkbox"/> |
| Typhoid | <input type="checkbox"/> | Dysentery | <input type="checkbox"/> | Skin disease | <input type="checkbox"/> |
| Paratyphoid | <input type="checkbox"/> | Vomiting | <input type="checkbox"/> | Rashes | <input type="checkbox"/> |
| Boils | <input type="checkbox"/> | Ulcers | <input type="checkbox"/> | Blackouts | <input type="checkbox"/> |
| Hand/finger | <input type="checkbox"/> | Fits | <input type="checkbox"/> | Diabetes | <input type="checkbox"/> |
| infections | <input type="checkbox"/> | Persistent | <input type="checkbox"/> | Nervous disability | <input type="checkbox"/> |
| Migraine | <input type="checkbox"/> | headaches | <input type="checkbox"/> | Jaundice | <input type="checkbox"/> |
| Ear infections | <input type="checkbox"/> | Eye infections | <input type="checkbox"/> | Joint pains | <input type="checkbox"/> |
| Hay fever | <input type="checkbox"/> | Allergies | <input type="checkbox"/> | | |

2. Have you had any operations? **YES/NO****If YES, state type and dates**

.....

3. Are you **at present** receiving any form of medical treatment? **YES/NO****If YES, state form of treatment and dates**

.....

4. Are you taking any form of pills, medicines or drugs, prescribed or otherwise? **YES/NO****If YES, state names of pills, medicines or drugs and medical reasons for taking same**

.....

5. When was your chest last X-rayed? Date:

Result:

6. Are you a registered disabled person? **YES/NO**

Reason for registration

7. When did you last travel abroad?

Date: Where:

I have answered each question to the best of my ability. I understand that deliberate misrepresentation may result in disciplinary action.

Signed: Date:

Full name and address:

.....

Occupational health: (c) Food handler's clearance certificate

Full name:

Department: Clock No:

Dates of absence from to

1. REASON FOR ABSENCE

Please tick:

(a) **Holiday** **Where?**

(b) **Sickness**

(c) **Injury**

2. DURING YOUR ABSENCE:

(a) did you **suffer** from:

Diarrhoea Vomiting Raised temperature

Persistent cough Urinary infection

Infections of: **Ears** **Nose** **Skin**

Throat **Eyes**

Boils Infected wounds

(b) were you **in contact** with anyone (family, friends, etc.) suffering from:

Diarrhoea Vomiting

Gastro-enteritis Food poisoning

I have answered each question to the best of my knowledge and belief.

Signed:

Full name:

Date:

Occupational health: (d) Fitness certificate

Mr/Mrs/Ms:

Clock: employed as

has had a Health/Medical Examination and you are advised that he/she is:

- **FIT**
- **FIT SUBJECT TO RESTRICTIONS**
- **UNFIT**

for normal work.

Notes

.....
.....
.....
.....
.....
.....

..... Occupational Health Nurse

Medical Officer

..... Date

Prohibition notice

HEALTH AND SAFETY EXECUTIVE

Serial No. P

Health and Safety at Work etc. Act 1974, Sections 22–24

PROHIBITION NOTICE

Name and address (See Section 46)	To

(a) Delete as necessary	(a) Trading as
(b) Inspector's full name	(b)
(c) Inspector's official designation	one of (c)
(d) Official address	of (d)
 Tel. no.
	hereby give you notice that I am of the opinion that the following activities,
	namely:

(e) Location of activity	which are (a) being carried on by you/about to be carried on by you/under your control
	at (e)
	Involve, or will involve (a) a risk/an imminent risk, of serious personal injury. I am further of the opinion that the said matters involve contraventions of the following statutory provisions:

	because

(f) Date	and I hereby direct that the said activities shall not be carried on by you or under your control (a) Immediately/after
	(f)
	unless the said contraventions and matters included in the schedule, which forms part of this notice, have been remedied.
	Signature: Date:
	being an inspector appointed by an instrument in writing made pursuant to Section 19 of the said Act and entitled to issue this notice.

LP2

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995: (a) Report of an injury or dangerous occurrence



Health and Safety at Work etc. Act 1974
The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

Report of an injury or dangerous occurrence

Filling in this form

This form must be filled in by an employer or other responsible person.

Part A

About you

- 1 What is your full name?
- 2 What is your job title?
- 3 What is your telephone number?

About your organisation

- 4 What is the name of your organisation?
- 5 What is its address and postcode?
- 6 What type of work does the organisation do?

Part B

About the incident

- 1 On what date did the incident happen?
- 2 At what time did the incident happen?
(Please use the 24-hour clock e.g. 0600)
- 3 Did the incident happen at the above address?
Yes Go to question 4
No Where did the incident happen?
 elsewhere in your organisation – give the name, address and postcode
 at someone else's premises – give the name, address and postcode
 in a public place – give details of where it happened

If you do not know the postcode, what is the name of the local authority?

- 4 In which department, or where on the premises, did the incident happen?

Part C

About the injured person

If you are reporting a dangerous occurrence, go to Part F.
If more than one person was injured in the same incident, please attach the details asked for in Part C and Part D for each injured person.

- 1 What is their full name?
- 2 What is their home address and postcode?
- 3 What is their home phone number?
- 4 How old are they?
- 5 Are they
 male?
 female?
- 6 What is their job title?

- 7 Was the injured person (tick only one box)
 one of your employees?
 on a training scheme? Give details:

- on work experience?
- employed by someone else? Give details of the employer:

- self-employed and at work?
- a member of the public?

Part D

About the injury

- 1 What was the injury (e.g. fracture, laceration)
- 2 What part of the body was injured?

- 3 Was the injury (tick the one box that applies)
- a fatality?
 - a major injury or condition? (see accompanying notes)
 - an injury to an employee or self-employed person which prevented them doing their normal work for more than 3 days?
 - an injury to a member of the public which meant they had to be taken from the scene of the accident to a hospital for treatment?
- 4 Did the injured person (tick all the boxes that apply)
- become unconscious?
 - need resuscitation?
 - remain in hospital for more than 24 hours?
 - none of the above.

Part E

About the kind of accident

Please tick the one box that best describes what happened, then go to Part G.

- Contact with moving machinery or material being machined
- Hit by a moving, flying or falling object
- Hit by a moving vehicle
- Hit something fixed or stationary

- Injured while handling, lifting or carrying
- Slipped, tripped or fell on the same level
- Fell from a height

How high was the fall?

metres

- Trapped by something collapsing
- Drowned or asphyxiated
- Exposed to, or in contact with, a harmful substance
- Exposed to fire
- Exposed to an explosion

- Contact with electricity or an electrical discharge
- Injured by an animal
- Physically assaulted by a person

- Another kind of accident (describe it in Part G)

Part F

Dangerous occurrences

Enter the number of the dangerous occurrence you are reporting. (The numbers are given in the Regulations and in the notes which accompany this form.)

For official use

Client number

Location number

Event number

INV REP Y N

Part G

Describing what happened

Give as much detail as you can. For instance

- the name of any substance involved
- the name and type of any machine involved
- the events that led to the incident
- the part played by any people.

If it was a personal injury, give details of what the person was doing. Describe any action that has since been taken to prevent a similar incident. Use a separate piece of paper if you need to.

Part H

Your signature

Signature

Date

 / /

Where to send the form

Please send it to the Enforcing Authority for the place where it happened. If you do not know the Enforcing Authority, send it to the nearest HSE office.

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995: (b) Report of a case of disease



Health and Safety at Work etc. Act 1974
The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

Report of a case of disease

Filling in this form

This form must be filled in by an employer or other responsible person.

Part A

About you

- 1 What is your full name?

- 2 What is your job title?

- 3 What is your telephone number?

About your organisation

- 4 What is the name of your organisation?

- 5 What is its address and postcode?

- 6 Does the affected person usually work at this address?

Yes Go to question 7

No where do they normally work?

- 7 What type of work does the organisation do?

Part B

About the affected person

- 1 What is their full name?

- 2 What is their date of birth?

- 3 What is their job title?

- 4 Are they

male?

female?

- 5 Is the affected person (tick one box)

one of your employees?

on a training scheme? Give details:

on work experience?

employed by someone else? Give details:

other? Give details:

Part C**The disease you are reporting**

1 Please give:

- the name of the disease, and the type of work it is associated with; or
- the name and number of the disease (from Schedule 3 of the Regulations - see the accompanying notes).

2 What is the date of the statement of the doctor who first diagnosed or confirmed the disease?

 / /

3 What is the name and address of the doctor?

Part D**Describing the work that led to the disease**

Please describe any work done by the affected person which might have led to them getting the disease.

If the disease is thought to have been caused by exposure to an agent at work (e.g. a specific chemical) please say what that agent is.

Give any other information which is relevant.

Give your description here

Continue your description here

Part E**Your signature**

Signature

Date

 / /
Where to send the form

Please send it to the Enforcing Authority for the place where the affected person works. If you do not know the Enforcing Authority, send it to the nearest HSE office.

For official use

Client number

Location number

Event number

 INV REP Y N

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Part 4

Health and Safety Glossary

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This glossary incorporates some of the more commonly used concepts and terms in occupational health and safety.

Absorption

The entry of a substance into the body. This may be by inhalation, pervasion (through the skin), ingestion, injection, inoculation and implantation.



1(c) Principal regulations

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002

Ionising Radiations Regulations 1999



2(a) Health and safety in practice

Health records

Health surveillance

Local rules



2(b) Hazard checklists

Hazardous substances

Radiation hazards



3(a) Tables and figures

Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations

Hazardous substances that can be revealed by medical analysis



3(b) Forms

Control of Substances Hazardous to Health Regulations 2002 – Health Risk Assessment



4. Health and Safety Glossary

Acute effect

Air sampling (air monitoring)

Chemical hazards

Dose

Dose–effect relationship
Dose–response relationship
Hazardous substances
Health risk assessment
Health surveillance
Route of entry
Substances hazardous to health
Target organs and target systems
Threshold dose
Toxicity
Toxicological assessment
Toxicology
Workplace exposure limit

Action levels, exposure action values and exposure limit values

These terms are commonly specified in regulations. Employers are required to take action wherever exposure of employees to an action level, action value or exposure action value is identified.

Action levels are specified with respect to exposure to asbestos and lead, thus:

Asbestos

The Control of Asbestos at Work Regulations 2002 specify one of the following cumulative exposures to asbestos over a continuous 12-week period when measured or calculated by a method approved by the HSC, namely:

- (a) where the exposure is solely to chrysotile, 72 fibre-hours per millilitre of air;
- (b) where the exposure is to any other form of asbestos either alone or in mixtures including mixtures of chrysotile with any other form of asbestos, 48 fibre-hours per millilitre of air; or

- (c) where both types of exposure occur separately during the 12-week period concerned, a proportionate number of fibre-hours per millilitre of air.



1(c) Principal regulations

Control of Asbestos at Work Regulations 2002

Lead

The Control of Lead at Work Regulations 2002 specify a blood lead concentration of:

- (a) in respect of a woman of reproductive capacity, 25 $\mu\text{g}/\text{dl}$;
- (b) in respect of a young person, 40 $\mu\text{g}/\text{dl}$;
- (c) in respect of any other employee, 50 $\mu\text{g}/\text{dl}$.



1(c) Principal regulations

Control of Lead at Work Regulations 2002

Noise

The Control of Noise at Work Regulations 2005 specify certain 'exposure action values' and 'exposure limit values' as follows:

- the lower exposure action values are:
 - (a) a daily or weekly personal noise exposure of 80 dB (A-weighted); and
 - (b) a peak sound pressure of 135 dB (C-weighted)
- the upper exposure action values are:
 - (a) a daily or weekly personal noise exposure of 85 dB (A-weighted); and
 - (b) a peak sound pressure of 137 dB (C-weighted)
- the exposure limit values are:
 - (a) a daily or weekly personal noise exposure of 87 dB (A-weighted); and
 - (b) a peak sound pressure of 140 dB (C-weighted).

Every employer must, when any of his employees is likely to be exposed to the first action level or above, or to the peak action

level or above, ensure that a competent person makes a noise assessment.



1(c) Principal regulations

Control of Noise at Work Regulations 2005



2(b) Hazard checklists

Noise



3(a) Tables and figures

Decibels (addition of)

Noise control methods

Noise control programme (typical structure)

Octave bands (standard range)



3(b) Forms

Noise exposure record

Vibration

The Control of Vibration at Work Regulations 2005 specify certain 'exposure limit values' and 'action values' thus:

For hand–arm vibration

- (a) the daily exposure limit value normalised to an 8-hour reference period is 5 m/s^2 ;
- (b) the daily exposure action value normalised to an 8-hour reference period is 2.5 m/s^2 ;
- (c) daily exposure shall be ascertained on the basis set out in Schedule 1 Part 1.

For whole body vibration

- (a) the daily exposure limit value normalised to an 8-hour reference period is 1.15 m/s^2 ;
- (b) the daily exposure action value normalised to an 8-hour reference period is 0.5 m/s^2 ;
- (c) daily exposure shall be ascertained on the basis set out in Schedule 2 Part 1.



1(c) Regulations

Control of Vibration at Work Regulations 2005

Active monitoring

A form of safety monitoring which entails a range of exercises directed at preventing accidents, including safety inspections, safety audits, safety tours and safety sampling exercises.



2(a) Health and safety in practice

Safety monitoring systems

Acute effect

A rapidly produced effect on the body following a single exposure to an offending or hazardous agent.

Aerosol

Any combination of particles carried in, or contained in, air. An aerosol may embrace liquid droplets as well as solid particles.

Air sampling (air monitoring)

The process of taking a sample of air for subsequent analysis. It may be undertaken on a short-term or long-term basis.

Short-term sampling (grab sampling, snap sampling) implies taking an immediate sample of air and, in most cases, passing it through a particular chemical reagent which responds to the contaminant being monitored.

Long-term sampling can be undertaken using personal sampling instruments or dosimeters, which are attached to the individual, and by the use of static sampling equipment located in the working area.



1(c) Principal regulations

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

*Control of Substances Hazardous to Health Regulations 2002
Dangerous Substances and Explosive Atmospheres Regulations 2002*



3(a) Tables and figures

Airborne contaminants: comparison of particle size ranges

Anthropometry

The study and measurement of body dimensions, the orderly treatment of the resulting data and the application of the data in the design of workspace layouts and equipment.



3(a) Tables and figures

The total working system – areas of study



4. Health and Safety Glossary

Ergonomics

Human factors

Atypical workers

A term used to describe workers and others who are not in normal daytime employment, together with shift workers, part-time workers and night workers.

[Working Time Regulations 1998]

Audiometry

The measurement of an individual's hearing acuity or ability over a range of frequencies. The determination of an individual's threshold levels for pure tones by air conduction under monoaural earphone listening conditions.

An audiogram, the outcome of an audiometric test, is used to assess the degree of hearing loss across the frequencies

of interest, that is, the frequencies at which normal speech takes place, i.e. 0.5, 1 and 2 KHz. It is essentially a chart of a person's hearing threshold levels for pure tones of different frequencies.



1(c) Principal regulations

Control of Noise at Work Regulations 2005



3(a) Tables and figures

Decibels (addition of)

Noise control programme – typical structure

Octave bands (standard range)



3(b) Forms

Noise exposure record



4. Health and Safety Glossary

Health surveillance

Noise-induced hearing loss (occupational deafness)

Octave band analysis

Primary monitoring

Reduced time exposure (limitation)

Auditing

The structured process of collecting independent information on the efficiency, effectiveness and reliability of the total safety management system and drawing up plans for corrective action. [*Successful health and safety management (HS(G)65)*]



2(a) Health and safety in practice

BS 8800: Guide to Occupational Health and Safety Management Systems

OHSAS 18001: A Pro-active Approach to Health and Safety Management

Safety monitoring systems

Successful health and safety management (HS(G)65)



3(a) Tables and figures

Key elements of successful health and safety management

Biological hazards

Ill-health can result from exposure to biological agents, such as bacteria, viruses and dusts. Biological hazards can be classified according to origin:

- animal-borne – e.g. anthrax, brucellosis
- human-borne – e.g. viral hepatitis
- vegetable-borne – e.g. aspergillosis (farmers' lung).

Biological monitoring

A regular measuring activity where selected validated indicators of the uptake of toxic substances are determined in order to prevent health impairment.

Biological monitoring may feature as part of the health surveillance procedures required under the Control of Substances Hazardous to Health (COSHH) Regulations.

It may be undertaken through the determination of the effects certain substances produce on biological samples of exposed individuals, and these determinations are used as biological indicators.

Biological samples where indicators may be determined consist of:

- blood, urine, saliva, sweat, faeces
- hair, nails, and
- expired air.

Indicators of internal dose can be divided into:

- true indicators of dose, i.e. capable of indicating the quantity of the substance at the sites of the body where it exerts its effect,
- indicators of exposure, which can provide an indirect estimate of the degree of exposure, since the levels of substances in the biological samples closely correlate with levels of environmental pollution, and
- indicators of accumulation that can provide an evaluation of the concentration of the substance in organs and/or

tissues from which the substance, once deposited, is slowly released.

It also includes the measuring of a person's blood-lead concentrations or urinary lead concentration in accordance in either case with the method known as atomic absorption spectrometry.



1(c) Principal regulations

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002



2(a) Health and safety in practice

Health records

Health surveillance



2(b) Hazard checklists

Hazardous substances

Hazardous substances that can be revealed by medical analysis



3(b) Forms

Control of Substances Hazardous to Health Regulations 2002 – Health Risk Assessment



4. Health and Safety Glossary

Absorption

Biological hazards

Dose

Health risk assessment

Health surveillance

Occupational health

Route of entry

Substances hazardous to health

British Standards

The British Standards Institution produces safety standards and codes through committees formed to deal with a specific matter or subject, such as machinery safety.

Standards contain details relating to, for instance, the construction of, and materials incorporated in, an item and, where necessary, prescribe methods of testing to establish compliance.

Codes deal with safe working practices and systems of work.

British Standards and Codes have no legal status, but can be interpreted by the courts as being the authoritative guidance on a particular matter.

Carcinogen

This means:

- (a) any substance or preparation which if classified in accordance with the classification provided for by Regulation 5 of the Chemicals (Hazard Information and Packaging for Supply) Regulations 1994 would be in the category of danger, carcinogenic (category 1) or carcinogenic (category 2) whether or not the substance or preparation would be required to be classified under those Regulations; or
- (b) any substance or preparation:
 - (i) listed in Schedule 1; and
 - (ii) arising from a process specified in Schedule 1 which is a substance hazardous to health.

[Control of Substances Hazardous to Health Regulations 2002]



1(c) Principal regulations

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Control of Substances Hazardous to Health Regulations 2002



2(b) Hazard checklists

Hazardous substances



3(a) Tables and figures

Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Hazardous substances that can be revealed by medical analysis

Local exhaust ventilation systems



3(b) Forms

Control of Substances Hazardous to Health Regulations 2002 – Health Risk Assessment



4. Health and Safety Glossary

Acute effect

Air sampling (air monitoring)

Chemical hazards

Chronic effect

Containment

Dose

Dose–response relationship

Hazardous substances

Health risk assessment

Health surveillance

Local exhaust ventilation (LEV)

Occupational health

Prohibition

Route of entry

Target organs and target systems

Toxicity

Toxicological assessment

CE marking

A specific form of marking which must be applied to a wide range of equipment, such as electrical equipment, indicating that the equipment complies with all the requirements of regulations, e.g. the Electrical Equipment (Safety) Regulations 1994, which implement that particular European Council Directive.

Change of process

A common strategy in protecting both the health and safety of people exposed to hazards. In this case, improved design or process engineering can result in changes to provide better protection, as in the case of dusty processes or those producing noise.



1(c) Principal regulations

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Noise at Work Regulations 2005

Control of Substances Hazardous to Health Regulations 2002

Control of Vibration at Work Regulations 2005

Ionising Radiations Regulations 1999

Manual Handling Operations Regulations 1992

Chemical hazards

These are hazards arising from the use and storage of chemical substances and which result in a range of chemical poisonings and other forms of disease or condition. Exposure to these hazards may result in dermatitis, occupational cancers and respiratory disorders.



1(c) Principal regulations

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002

Dangerous Substances and Explosive Atmospheres Regulations 2002



2(b) Hazard checklists

Hazardous substances



3(a) Tables and figures

Airborne contaminants: comparison of particle size ranges

Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Hazardous substances that can be revealed by medical analysis

Safety data sheets – obligatory headings

Safety signs

**3(b) Forms**

*Control of Substances Hazardous to Health Regulations
2002 – Health Risk Assessment*

**4. Health and Safety Glossary**

Absorption

Acute effect

Aerosol

Air sampling (air monitoring)

Carcinogen

Change of process

Chronic effect

Dilution ventilation

Dose

Dose–effect relationship

Dose–response relationship

Elimination

Hazardous substances

Health risk assessment

Health surveillance

Local effect

Local exhaust ventilation (LEV)

Neutralisation

Occupational health

Occupational hygiene

Prescribed disease

Primary monitoring

Prohibition

Reportable disease

Route of entry

Secondary monitoring

Substances hazardous to health

Substitution

Target organs and target systems

Threshold dose

Toxicological assessment

Toxicity

Workplace exposure limit

Chronic effect

An effect on the body as a result of prolonged exposure or repeated exposure of long duration.

Comfort

A subjective assessment of the conditions in which a person works, sleeps, relaxes, travels, etc. and which varies according to age, state of health and vitality. Comfort is directly related to environmental factors such as temperature, ventilation and humidity.



1(c) Principal regulations

Building Regulations 2000

Workplace (Health, Safety and Welfare) Regulations 1992

Comfort ventilation

The process of providing sufficient air for people to breathe and, to some extent, regulating temperature. It is directly related to the number of air changes per hour in a workplace according to the external ambient air temperature and the actual rate of air movement. Rates of air change will, in most cases, vary from summer to winter in order to maintain comfort.



1(c) Principal regulations

Building Regulations 2000

Workplace (Health, Safety and Welfare) Regulations 1992



3(a) Tables and figures

Air changes per hour (comfort ventilation)

Maximum permissible wet bulb globe temperatures

Optimum working temperatures



4. Health and Safety Glossary

Comfort

Compartmentation

A structural process, designed to limit the spread of fire within a building, which divides the building into fire-resistant cells or units, both vertically and horizontally. It is further used to segregate high risk areas of a building from other areas.



1(c) Principal regulations

Building Regulations 2000

Regulatory Reform (Fire Safety) Order 2005



2(b) Hazard checklists

Fire safety

Flammable substances

Confined space

This is defined as ‘a place which is substantially, though not always entirely, enclosed, and where there is a risk that anyone who may enter the space could be injured due to fire or explosion, overcome by gas, fumes, vapour, or the lack of oxygen, drowned, buried under free-flowing solids, such as grain, or overcome due to high temperature’.

Under the Confined Spaces Regulations 1997 employers must:

- (a) avoid employees from entering confined spaces, for example, by undertaking the work from outside;
- (b) follow a safe system of work, e.g. a Permit to Work system, if entry to a confined space is unavoidable; and
- (c) put in place adequate emergency arrangements before work starts, which will also safeguard any rescuers.

The regulations are accompanied by an ACOP and HSE Guidance.



1(c) Principal regulations

Confined Spaces Regulations 1997



4. Health and Safety Glossary

Permit to work

Construction work

The carrying out of any building, civil engineering or engineering construction work, including any of the following:

- (a) the construction, alteration, conversion, fitting out, commissioning renovation, repair, upkeep, redecoration or other maintenance (including cleaning) which involves the use of water or an abrasive at high pressure or the use of substances classified as corrosive or toxic for the purposes of Regulation 7 of the Chemicals (Hazard Information and Packaging for Supply) Regulations 1994, decommissioning, demolition or dismantling of a structure;
 - (b) the preparation for an intended structure, including site clearance, exploration, investigation (but not site survey) and excavation, and laying or installing the foundations of a structure;
 - (c) the assembly of prefabricated elements to form a structure or the disassembly of prefabricated elements which, immediately before such disassembly, formed a structure;
 - (d) the removal of a structure or part of a structure or of any product or waste resulting from demolition or dismantling of a structure or from disassembly of prefabricated elements which, immediately before such disassembly, formed a structure;
 - (e) the installation, commissioning, maintenance, repair or removal of mechanical, electrical, gas, compressed air, hydraulic, telecommunications, computer or similar services which are normally fixed within or to a structure.
- [Construction (Design and Management) Regulations 1994]



1(c) Principal regulations

Building Regulations 2000

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Construction (Design and Management) Regulations 1994

Construction (Health, Safety and Welfare) Regulations 1996
Work at Height Regulations 2005



2(a) Health and safety in practice

Competent persons
Health and safety file
Health and safety plans
Method statements



2(b) Hazard checklists

Construction activities
Maintenance work



3(a) Tables and figures

Construction (Design and Management) Regulations 1994 –
How to decide when the exceptions to the CDM Regula-
tions apply

Places of work requiring inspection by a competent person
under Regulation 29(1) of the Construction (Health, Safety
and Welfare) Regulations 1996



3(b) Forms

Construction (Design and Management) Regulations 1994 –
Notification of Project (Form 10)

Contact hazard

A hazard arising from contact with a machine at a particular point arising from sharp surfaces, sharp projections, heat and extreme cold.



1(c) Principal regulations

Provision and Use of Work Equipment Regulations 1998



4. Health and Safety Glossary

Machinery hazards
Machinery guards
Machinery safety devices
Non-mechanical hazards
Non-operational parts (machinery)
Operational parts (machinery)

Containment/enclosure

The structural prevention of fire spread to other parts of a premises through the use of fire doors, fireproof compartments and other fire-resistant structures.

Total containment or enclosure of a dangerous processing operation is effected by the use of bunds, bulk tanks and pipework to deliver a liquid directly into a closed production vessel.



1(c) Principal regulations

Building Regulations 2000

Regulatory Reform (Fire Safety) Order 2005

Danger

Liability of exposure to harm; a thing that causes peril.

When applied to machinery in motion is a situation in which there is a reasonably foreseeable risk of injury from mechanical hazards associated with contact with it or being trapped between the machinery and any material in or at the machinery, or any fixed structure. Or being struck by, or entangled in or by any material in motion in the machinery or being struck by parts of the machinery ejected from it, or being struck by material ejected from the machinery.

[BS EN ISO 12100: Safety of machinery]

Dangerous occurrence

An event listed in Schedule 2 of the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995. It is an event with particularly significant potential for death and/or major injury, such as the collapse or overturning of lifting machinery, unintentional explosions, gassing accidents and boiler explosions.

Under RIDDOR, dangerous occurrences are classified in five groups – general, those relating to mines, those relating to quarries, those relating to relevant transport systems and those in respect of offshore workplaces.



1(c) Principal regulations

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995



3(a) Tables and figures

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations – Reporting requirements



3(b) Forms

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

(a) *Report of an Injury or Dangerous Occurrence (Form 2508)*

Dilution ventilation

In certain situations it may not be possible to use a local exhaust ventilation system to remove airborne contaminants. Where the quantity of contaminant is small, uniformly evolved and of low toxicity, it may be possible to dilute the contaminant by inducing large volumes of air to flow through the contaminated region.

Dilution ventilation is most successfully used to control vapours from low toxicity solvents, but is seldom successfully applied to dust and fumes.

Display screen equipment

Any alphanumeric or graphic display screen, regardless of the display process involved.

[Health and Safety (Display Screen Equipment) Regulations 1992]

The regulations apply only to 'users' and 'operators' of display screen equipment:

- a 'user' means an employee who habitually uses display screen equipment as a significant part of his normal work
- an 'operator' means a self-employed person who habitually uses display screen equipment as a significant part of his normal work.



1(c) Principal regulations

Health and Safety (Display Screen Equipment) Regulations 1992



2(c) Hazard checklists

Display screen equipment



3(a) Tables and figures

Health and Safety (Display Screen Equipment) 1992:

- Display screen equipment workstation – design and layout*
- Seating and posture for typical office tasks*

Dose

The level of environmental contamination or offending agent related to the duration of exposure to same.

Dose = Level of environmental contamination
× Duration of exposure

The term is used in the case of physical stressors e.g. noise, chemical stressors, e.g. gases and biological stressors, e.g. bacteria.



1(c) Principal regulations

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Noise at Work Regulations 2005

Control of Substances Hazardous to Health Regulations 2002

Control of Vibration at Work Regulations 2005

Ionising Radiations Regulations 1999

**2(a) Health and safety in practice**

Dose Record
Health records
Health surveillance
Local rules
Risk assessment

**2(c) Hazard checklists**

Hazardous substances
Noise
Radiation hazards

**3(a) Tables and figures**

Hazardous substances that can be revealed by medical analysis

**3(b) Forms**

*Control of Substances Hazardous to Health Regulations
 2002 – Health Risk Assessment*
Noise exposure record

**4. Health and Safety Glossary**

Absorption
Action levels, exposure action levels and exposure limit values
Acute effect
Air sampling (air monitoring)
Audiometry
Biological hazards
Biological monitoring
Carcinogen
Chemical hazards
Chronic effect
Dose–effect relationship
Dose–response relationship
Hazardous substances
Health risk assessment
Health surveillance
Ionising radiation
Noise-induced hearing loss (occupational deafness)
Occupational hygiene
Primary monitoring
Reduced time exposure (limitation)
Route of entry

Secondary monitoring

Segregation

Substances hazardous to health

Substitution

Target organs and target systems

Threshold dose

Toxicity

Toxicological assessment

Toxicology

Dose–effect relationship

Estimation of the relationship between the specific dose of a contaminant and its effects on the human body is based on the degree of association existing, firstly, between an indicator of dose, i.e. urine, faeces, blood, saliva and, secondly, an indicator of effect on the body, e.g. respiratory difficulties, unconsciousness, headaches.

The study of this relationship will show the particular concentration of a toxic substance at which the indicator of effect exceeds the value currently accepted as 'normal'.

See cross references for *Dose*

Dose–response relationship

Consideration of threshold limits of exposure or dose, which most people can tolerate without either short-term or long-term damage to their health, is a basic feature of the prevention and control of occupational diseases.

For many chemicals commonly used, it is possible to establish a relationship or link between the dose received and the body's response (e.g. coughing, lachrymation), a characteristic known as the 'dose–response relationship'.

Where dose is plotted against response in a graphical form, with many dusts, for instance, the response is directly proportion to the dose. In the case of other environmental contaminants, the dose response curve remains at a level of no response at a point greater than zero on the dose axis. This point of cut-off identifies the threshold dose. After reaching the threshold dose, the body's response rises dramatically.

See cross references for *Dose*

Elimination

A prevention strategy in the use of hazardous substances whereby substances no longer in use, or which can be replaced by less hazardous substances, are eliminated from an organisation's inventory and stock of substances.



2(b) Hazard checklists

Hazardous substances



4. Health and Safety Glossary

Absorption

Hazardous substances

Health risk assessment

Emergency lighting

This form of lighting is provided to ensure safety when a normal lighting installation fails.

Standby lighting enables essential work to continue, the illuminance required depending upon the nature of the work. It may be between 5% and 100% of the illuminance provided by the normal lighting installation.

Escape lighting enables a building to be evacuated safely, and may take the form of battery or generator-powered installations.



1(b) Principal regulations

Building Regulations 2000

Regulatory Reform (Fire Safety) Order 2005

Workplace (Health, Safety and Welfare) Regulations 1992

Ergonomics

Ergonomics can be defined in several ways:

- the scientific study of work
- human factors engineering
- the study of the man–machine interface
- the scientific study of the interrelationships between people and their work.

Ergonomics takes into account:

- the human system
- environmental factors
- the man–machine interface, and
- the total working system.



1(c) Principal regulations

Health and Safety (Display Screen Equipment) Regulations 1992

Management of Health and Safety at Work Regulations 1999



3(a) Tables and figures

Health and Safety (Display Screen Equipment) Regulations 1992

(a) Display screen equipment workstation – design and layout

(b) Seating and posture for typical office tasks

The Total Working System – Areas of study



4. Health and Safety Glossary

Anthropometry

Human factors

Job design

Fail safe

A design feature of machinery whereby any failure in, or interruption of, the power supply to a safeguard will result in the prompt stopping or, where appropriate, stopping and reversal of the movement of the dangerous parts before injury can occur, or the safeguard remaining in position to prevent access to the danger point or area.



1(c) Principal regulations

Provision and Use of Work Equipment Regulations 1998



2(b) Hazard checklists

Work equipment



4. Health and Safety Glossary

Intrinsic safety

Machinery hazards

Machinery guards

Machinery safety devices

Fire instructions

A notice informing people of the action they should take on either hearing a fire alarm or discovering a fire.



3(a) Tables and figures

Fire instruction notice

First aid

The skilled application of accepted principles of treatment on the occurrence of an accident or in the case of sudden illness, using facilities and materials available at the time.

The principal aims of first aid are:

- to sustain life
- to prevent deterioration in an existing condition, and
- to promote recovery.

Under the Health and Safety (First Aid) Regulations 1981, first aid means:

- in cases where a person will need help from a medical practitioner or nurse, treatment for the purpose of preserving life and minimising the consequences of injury or illness until such help is obtained, and
- treatment of minor injuries which would otherwise receive no treatment or which do not need treatment by a medical practitioner or nurse.



1(c) Principal regulations

Health and Safety (First Aid) Regulations 1981

Fracture mechanics

A branch of engineering science concerned with the study of material failures and factors which determine the probability of catastrophic failure of various structural components. The results of these studies can be used in the design of structures, machinery and lifting appliances.

Gas incident

Any death or any major injury which has arisen out of or in connection with the gas distributed, filled, imported or supplied, as the case may be, by a conveyor of flammable gas through a fixed pipe distribution system, or a filler, importer or supplier (other than by means of retail trade) of a refillable container containing liquefied petroleum gas.

[Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995]



1(c) Principal regulations

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

Generic risk assessment

A risk assessment produced once only for a given activity, type of workplace or specific work group. This is particularly appropriate where organisations run a range of similar workplaces in different locations, e.g. maintenance workshops, undertake activities which are standard, e.g. tyre fitting and employ people to carry out the same type of work in different locations, e.g. postmen.

For generic assessments to be effective:

- (a) 'worst case' situations must be considered; and
- (b) provision should be made within the generic risk assessment to monitor implementation of the recommended preventive measures and controls which are relevant to a particular workplace, work activity or work group.



1(c) Principal regulations

Management of Health and Safety at Work Regulations 1999



2(a) Health and safety in practice

BS 8800: Guide to Occupational Health and Safety Management Systems

OHSAS 18001: A Pro-Active Approach to Health and Safety Management

Risk assessment

Successful Health and Safety Management



4. Health and Safety Glossary

Atypical workers

Hazard

Risk

Hazard

Something with the potential to cause harm. This can include substances or machines, methods of work and other aspects of work organisation.

The result of a departure from the normal situation, which has the potential to cause death, injury, damage or loss.

The physico-chemical or chemical property of a dangerous substance which has the potential to give rise to fire, explosion, or other events which can result in harmful physical effects of a kind similar to those which can be caused by fire or explosion, affecting the safety of a person.

[Dangerous Substances and Explosive Atmospheres Regulations 2002]

In relation to a substance, means the intrinsic property of that substance which has the potential to cause harm to the health of a person.

[Control of Substances Hazardous to Health Regulations 2002]



1(c) Principal regulations

Control of Major Accident Hazards Regulations 1999

Control of Substances Hazardous to Health Regulations 2002

Dangerous Substances and Explosive Atmospheres Regulations 2002

Management of Health and Safety at Work Regulations 1999



2(a) Health and safety in practice

Risk assessment

Safe systems of work

Safety monitoring systems



4. Health and Safety Glossary

Risk

Hazardous substances

Hazardous substances and preparations are classified according to their category of danger under the Chemicals (Hazard Information and Packaging for Supply) (CHIP) Regulations 1994

Classification is on the basis of

- physico-chemical properties – explosive, oxidising, extremely flammable, highly flammable, flammable

- health effects – very toxic, toxic, harmful, corrosive, irritant, sensitising, carcinogenic, mutagenic, toxic for reproduction
- dangerous for the environment.

Certain substances may have a double classification, e.g. 'toxic' and 'flammable'.



1(c) Principal regulations

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Control of Substances Hazardous to Health Regulations 2002

Dangerous Substances and Explosive Atmospheres Regulations 2002

Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1972



2(b) Hazard checklists

Flammable substances

Hazardous substances



3(a) Tables and figures

Airborne contaminants: comparison of particle size ranges

Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Hazardous substances that can be revealed by medical analysis

Safety data sheets – obligatory headings



3(b) Forms

Control of Substances Hazardous to Health Regulations 2002 – Health Risk Assessment



4. Health and Safety Glossary

Absorption

Acute effect

Aerosol

Air sampling (air monitoring)

Chemical hazards

Chronic effect

Dose

Dose–effect relationship

Dose–response relationship

Elimination

Health risk assessment

Health surveillance

Local effect

Long-term exposure limit

Occupational hygiene

Primary monitoring

Route of entry

Secondary monitoring

Substances hazardous to health

Substitution

Target organs and target systems

Threshold dose

Toxicological assessment

Toxicology

Workplace exposure limits

Health risk assessment

Where there may be a risk of exposure of employees to a substance hazardous to health an employer must make a suitable and sufficient assessment of the risks created by that work to the health of those employees and the steps that need to be taken to meet the requirements of the regulations.

An assessment of the risks created by any work should involve:

(a) consideration of:

- (i) which substances or types of substance (including biological agents) employees are liable to be exposed to (taking into account the consequences of possible failure of any control measure provided to meet the requirements of Regulation 7);
- (ii) what effects those substances can have on the body;
- (iii) where the substances are likely to be present and in what form;
- (iv) the ways in which and the extent to which any groups of employees or other persons could potentially be exposed, taking into account the nature of

the work and process, and any reasonably foreseeable deterioration in, or failure of, any control measure provided for the purposes of Regulation 7;

- (b) an estimate of exposure, taking into account engineering measures and systems of work currently employed for controlling potential exposure;
- (c) where valid standards exist, representing adequate control, comparison of the estimate with those standards.

[Control of Substances Hazardous to Health Regulations 2002 and ACOP]



1(c) Principal regulations

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002

Management of Health and Safety at Work Regulations 1999



2(a) Health and safety in practice

Health records

Health surveillance

Risk assessment



2(b) Hazard checklists

Hazardous substances



3(a) Tables and figures

Airborne contaminants: comparison of particle size ranges

Categories of danger: Chemicals (Hazard Information and Packaging for Supply) Regulations

Hazardous substances that can be revealed by medical analysis

Safety data sheets – obligatory headings



3(b) Forms

Control of Substances Hazardous to Health Regulations 2002 – Health Risk Assessment



4. Health and Safety Glossary

Biological monitoring

Chemical hazards

Dose

Dose–response relationship
Hazardous substances
Health surveillance
Primary monitoring
Route of entry
Secondary monitoring
Substances hazardous to health
Threshold dose
Toxicity
Toxicological assessment
Workplace exposure limit

Health surveillance

The specific health examination at a predetermined frequency of those at risk of developing further ill health or disability, e.g. employees exposed to chemical hazards, and those actually or potentially at risk by virtue of the type of work they undertake during their employment, e.g. radiation workers.

The assessment of the state of health of an employee, as related to exposure to substances hazardous to health, and includes biological monitoring.

[Control of Substances Hazardous to Health Regulations 2002]



1(c) Principal regulations

Control of Asbestos at Work Regulations 2002
Control of Lead at Work Regulations 2002
Control of Noise at Work Regulations 2005
Control of Substances Hazardous to Health Regulations 2002
Control of Vibration at Work Regulations 2005
Ionising Radiations Regulations 1999
Management of Health and Safety at Work Regulations 1999



2(a) Health and safety in practice

Dose Record
Health records
Health surveillance

**3(a) Tables and figures**

Hazardous substances that can be revealed by medical analysis

**3(b) Forms**

Occupational health:

(a) *Pre-employment health questionnaire*

(b) *Health questionnaire*

(c) *Food handler's clearance certificate*

(d) *Fitness certificate*

**4. Health and Safety Glossary**

Active monitoring

Audiometry

Biological monitoring

Dose-response relationship

Hazardous substances

Health risk assessment

Local effect

Occupational health

Prescribed disease

Primary monitoring

Reportable disease

Secondary monitoring

Toxicological assessment

Hot work

The use of a range of equipment which may produce direct flames, heat, sparks, and arcing, and involving processes such as welding, cutting, brazing, soldering and the boiling of bitumen.

**2(a) Health and safety in practice**

Method statements

Risk assessment

Safe systems of work

Safety monitoring systems

**2(b) Hazard checklists**

Fire safety

Flammable substances



4. Health and Safety Glossary

Permit to work

Personal protective equipment

Human factors

A term used to cover a range of issues including:

- the perceptual, physical and mental capabilities of people and the interaction of individuals with their job and working environment
- the influence of equipment and system design on human performance, and
- the organisational characteristics which influence safety-related behaviour.

These are affected by:

- the system for communication within the organisation, and
- the training systems and procedures in operation

all of which are directed at preventing human error.



1(c) Principal regulations

Health and Safety (Consultation with Employees) Regulations 1996

Health and Safety (Display Screen Equipment) Regulations 1992

Health and Safety (Information for Employees) Regulations 1998

Management of Health and Safety at Work Regulations 1999

Safety Representatives and Safety Committees Regulations 1977



2(a) Health and safety in practice

Accident investigation procedures

Consequence analysis

Health and safety training

Information and instruction

Joint consultation

Management oversight and risk tree analysis
OHSAS 18001: A Pro-active Approach to Health and Safety Management
Risk assessment
Risk management
Safe systems of work
Successful health and safety management
Technique of human error rate probability
Total loss control



3(a) Tables and figures

Health and Safety (Display Screen Equipment) Regulations 1992
 (a) *Display screen equipment workstation – design and layout*
 (b) *Seating and posture for typical office tasks*
The Total working system – Areas of study



3(b) Forms

Job safety analysis record



4. Health and Safety Glossary

Anthropometry
Atypical workers
Ergonomics
Job design
Job safety analysis
Job safety instructions
Joint consultation
Organisational characteristics
Safety culture
Safety propaganda

Illuminance

The quantity of light flowing from a source, such as a light bulb. It is sometimes referred to as 'luminous flux' or light flow, and measured in lux.



1(c) Principal regulations

Workplace (Health, Safety and Welfare) Regulations 1992



3(a) Tables and figures

*Average illuminances and minimum measured illuminances
Maximum ratios of illuminance for adjacent areas*



4. Health and Safety Glossary

Emergency lighting

Impulse noise

Noise which is produced by widely spaced impacts between, for instance, metal parts, such as drop hammers.



1(c) Principal regulations

Control of Noise at Work Regulations 2005



2(b) Hazard checklists

Noise



3(a) Tables and figures

Decibels (addition of)

Noise control methods

Noise control programme – Typical structure

Octave bands (standard range)



3(b) Forms

Noise Exposure Record



4. Health and Safety Glossary

Action levels, exposure action levels and exposure limit values

Audiometry

Dose

Noise-induced hearing loss (occupational deafness)

Octave band analysis

Incident

- An event which does not result in injury, damage or loss but which may cause interruption of the work process.
- An undesired event that could, or does, result in loss.

- An undesired event that could, or does, downgrade the efficiency of the business operation.



2(a) Health and safety in practice

Accident investigation procedures
Consequence analysis
Event tree analysis
Failure mode and effect analysis
Fault tree analysis
Major incidents
Management oversight and risk tree analysis
Safe systems of work
Total loss control



3(a) Tables and figures

Accident indices
Accident ratios



4. Health and Safety Glossary

Near miss
Reportable event
Risk avoidance

Inspection (work equipment)

In relation to an inspection under Regulation 6:

- means such visual or more rigorous inspection by a competent person as is appropriate for the purpose described in that paragraph;
- where it is appropriate to carry out testing for the purpose, includes testing the nature and extent of which are appropriate for the purpose.

[Provision and Use of Work Equipment Regulations 1998]



1(c) Principal regulations

Lifting Operations and Lifting Equipment Regulations 1998
Lifts Regulations 1997
Pressure Systems Safety Regulations 2000

Provision and Use of Work Equipment Regulations 1998
Simple Pressure Vessels (Safety) Regulations 1991
Work at Height Regulations 2005



2(a) Health and safety in practice

Planned preventive maintenance



2(b) Hazard checklists

Display screen equipment

Electrical equipment

Mobile mechanical handling equipment (lift trucks, etc)

Work equipment

Intrinsic safety

A concept based on the principle that sparks whose electrical parameters (voltage, current, energy) do not exceed certain level are incapable of igniting a flammable atmosphere. It is applied as a concept to low energy circuits, such as instrumentation and control systems.

Intrinsically safe equipment

The use of electrical equipment in flammable atmospheres requires that such equipment should be intrinsically safe, i.e. not provide a source of ignition. On this basis, such equipment must be flameproofed and intrinsically safe for use in potentially flammable hazardous areas. These areas are classified according to a graded possibility of an explosive gas or vapour concentration occurring.



1(c) Principal regulations

Dangerous Substances and Explosive Atmospheres Regulations 2002

Electricity at Work Regulations 1989



2(b) Hazard checklists

Electrical equipment

Ionising radiation

The transfer of energy in the form of particles or electromagnetic waves of a wavelength of 100 nanometres or less or a frequency of 3×10^{15} hertz or more capable of producing ions directly or indirectly.

[Ionising Radiations Regulations 1999]



1(c) Principal regulations

Ionising Radiations Regulations 1999



2(b) Hazard checklists

Radiation hazards



3(a) Tables

Electromagnetic spectrum

Isolation

A commonly used control measure against identified risks implying the isolation or segregation of people from the particular hazard by, for instance, the use of remote control handling systems, enclosure of a plant or process producing harmful substances, the installation of high risk processing plants in remote parts of a country and enclosure of an individual in an acoustic booth or enclosure to protect against noise exposure.

Electrical isolation implies the disconnection and separation of an electrical appliance from every source of electrical energy in such a way that both disconnection and separation are secure.



1(c) Principal regulations

Control of Noise at Work Regulations 2005

Electricity at Work Regulations 1989

Ionising Radiations Regulations 1999



4. Health and Safety Glossary

Risk avoidance

Segregation

Job design

In the design of jobs, the following major considerations should be made:

- identification and comprehensive analysis of the critical tasks expected of individuals and appraisal of likely errors;
- evaluation of required operator decision making and the optimum balance between human and automatic contributions to safety actions;
- application of ergonomic principles to the design of man-machine interfaces, including displays of plant process information, control devices and panel layouts;
- design and presentation of procedures and operating instructions;
- organisation and control of the working environment, including the extent of the workspace, access for maintenance work and the effects of noise, lighting and thermal conditions;
- provision of the correct tools and equipment;
- scheduling of work patterns, including shift organisation, control of fatigue and stress, and arrangements for emergency operations/situations;
- efficient communications, both immediate and over periods of time.

[Reducing error and influencing behaviour – HS(G)48]



1(c) Principal regulations

Management of Health and Safety at Work Regulations 1999



1(d) Approved codes of practice

Management of health and safety at work



1(e) HSE guidance notes

Reducing error and influencing behaviour



4. Health and Safety Glossary

Anthropometry

Ergonomics

Human factors

Job safety analysis

Job safety instructions

Job safety analysis

A technique in the design of safe systems of work which identifies all the accident prevention measures appropriate to a particular job or area of work activity and the behavioural factors which most significantly influence whether or not these measures are taken.



2(a) Health and safety in practice

Safe systems of work

Safety monitoring



3(c) Forms

Job safety analysis record



4. Health and Safety Glossary

Job design

Job safety instructions

Job safety instructions

Job safety instructions are commonly one of the outcomes of job safety analysis, a technique used in the design of safe systems of work. Such instructions inform operators of specific risks at different stages of a job and advise of the precautions necessary to be taken at each stage.

Job safety instructions should be imparted to operators at the induction stage of their health and safety training and regularly reinforced.



2(a) Health and safety in practice

Safe systems of work

Joint consultation

An important means of improving motivation of people by enabling them to participate in planning work and setting objectives.

The processing of consulting with employees and others on health and safety procedures and systems. This may take place through consultation by an employer with trade-union-appointed safety representatives, non-trade-union representatives of employee safety and through the operation of a health and safety committee.

Legal and practical requirements relating to joint consultation are laid down in the Safety Representatives and Safety Committees Regulations 1977 and Health and Safety (Consultation with Employees) Regulations 1996, together with accompanying ACOP and HSE Guidance.



1(b) Statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Health and Safety (Consultation with Employees) Regulations 1996

Safety Representatives and Safety Committees Regulations 1977



1(d) Approved codes of practice

Safety representatives and safety committees



2(a) Health and safety in practice

Joint consultation

Statements of health and safety policy



4. Health and Safety Glossary

Safety representative

L_{EQ} (Equivalent continuous sound level)

Where sound pressure levels fluctuate, an equivalent sound pressure level, averaged over a normal eight hour day.

Local effect

An effect on the body of exposure to a toxic substance which is at the initial point of contact, e.g. the skin, nose, throat, bladder, eyes.

**1(e) HSE guidance notes**

Workplace exposure limits

**2(b) Hazard checklists**

Hazardous substances

**4. Health and Safety Glossary**

Absorption

Acute effect

Chemical hazards

Chronic effect

Dose

Dose–response relationship

Hazardous substances

Health risk assessment

Health surveillance

Route of entry

Substances hazardous to health

Workplace exposure limit

Local exhaust ventilation (LEV) system

Mechanical exhaust ventilation systems designed to intercept airborne contaminants at the point of, or close to, the source of generation, directing the contaminant into a system of ducting connected to an extraction fan and filtration unit.

LEV systems incorporate:

- a hood, enclosure or inlet to collect the agent
- ductwork
- a filter or air-cleaning device
- a fan or other air-moving device
- further ductwork to discharge clean air to the external air.

LEV systems may be of the receptor, captor or low-volume high-velocity type (see individual entries).

**1(c) Principal regulations**

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002

Ionising Radiations Regulations 1999

Workplace (Health, Safety and Welfare) Regulations 1992



1(d) Approved codes of practice

Control of substances hazardous to health



3(a) Tables and figures

Airborne contaminants: comparison of particle size ranges

Local exhaust ventilation systems



4. Health and Safety Glossary

Containment

Health risk assessment

Risk control

Long-term exposure limit (LTEL)

LTEs for a wide range of chemical substances are listed in HSE Guidance Note EH40 *Workplace exposure limits*. They are concerned with the total intake of substances hazardous to health over long periods (8 hours), and are therefore appropriate for protecting against the effects of long-term exposure.



1(e) HSE guidance notes

Workplace exposure limits

Loss control

Any intentional management action directed at the prevention, reduction or elimination of the pure (non-speculative) risks of business.

A management system designed to reduce or eliminate all aspects of accidental loss that lead to waste of an organisation's assets.



2(a) Health and safety in practice

Accident costs

Total loss control

Low voltage

This is a protective measure against electric shock. The most commonly reduced low voltage system is the 110 volt centre point earthed system. With this system the secondary winding of the transformer providing the 110 volt supply is centre tapped to earth, thus ensuring that at no part of the 110 volt circuit can the voltage to earth exceed 55 volts.



1(c) Principal regulations

Electricity at Work Regulations 1989



1(d) Memorandum of guidance

Electricity at Work Regulations 1989



2(b) Hazard checklists

Electrical equipment

Offices and commercial premises



4. Health and Safety Glossary

Intrinsically safe equipment

Intrinsic safety

Lux

The metric unit of luminous flux or illuminance, which equates to lumens per square metre.



1(c) Principal regulations

Workplace (Health, Safety and Welfare) Regulations



1(d) Approved codes of practice

Workplace health, safety and welfare



3(a) Tables and figures

Average illuminances and minimum measured illuminances

Maximum ratios of illuminance for adjacent areas



4. Health and Safety Glossary

Illuminance

Machinery guards

Safeguarding of machinery is achieved through a combination of physical guards and safety devices.

There are five main forms of machinery guard:

- a fixed guard i.e. a guard which has no moving parts associated with, or dependent upon, the mechanism of any machinery, and which, when in position, prevents access to a danger point or area
- an adjustable guard i.e. a guard incorporating an adjustable element which, once adjusted, remains in that position during a particular operation
- a distance guard i.e. a guard which does not completely enclose a danger point or area but which places it out of normal reach
- an interlocking guard i.e. a guard which has a movable part so connected with the machinery controls that:
 - the parts of the machinery causing danger cannot be set in motion until the guard is closed
 - the power is switched off and the motion braked before the guard can be opened sufficiently to allow access to the dangerous parts, and
 - access to the danger point or area is denied whilst the danger exists
- an automatic guard i.e. a guard which is associated with, and dependent upon, the mechanism of the machinery and operates so as to remove physically from the danger area any part of a person exposed to the danger.

See cross references for *Machinery hazards*

Machinery hazards

A person may be injured at machinery through:

- coming into contact with, or being trapped between, the machinery and any material in or at the machinery or any fixed structure

- being struck by, or becoming entangled in motion in, the machinery
- being struck by parts of the machinery ejected from it
- being struck by material ejected from the machinery (BS EN 292).

The principal hazards associated with machinery are:

- traps – reciprocating and shearing traps, and in-running nips
- entanglement – with unguarded rotating parts
- ejection – of items from machines
- contact – with, for instance, hot surfaces



1(a) Legal background

Absolute (strict) liability



1(b) Statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Lifting Operations and Lifting Equipment Regulations 1998

Provision and Use of Work Equipment Regulations 1998



1(d) Approved codes of practice

Safe use of work equipment



2(a) Health and safety in practice

Planned preventive maintenance

Risk assessment



2(b) Hazard checklists

Maintenance work

Work equipment



4. Health and Safety Glossary

CE marking

Contact hazard

Fail-safe

Fracture mechanics

Inspection (work equipment)

Intrinsically safe equipment

Machinery guards

Machinery safety devices

Non-mechanical hazards

Non-operational parts (machinery)

Operational parts (machinery)

Statutory examination

Statutory inspection

Machinery safety devices

Safety devices take the form of:

- trip devices i.e. a means whereby any approach by a person beyond the safe limit of working machinery causes the device to actuate and stop the machinery or reverse its motion, thus preventing or minimising injury at the danger point
- two-hand control devices, i.e. a device which requires both hands to operate the machinery controls, thus affording a measure of protection from danger only to the machinery operator and not other persons
- overrun devices, i.e. a device which, used in conjunction with a guard, is designed to prevent access to machinery parts which are moving by their own inertia after the power supply has been interrupted so as to prevent danger
- mechanical restraint devices, i.e. a device which applies mechanical restraint to a dangerous part of machinery which has been set in motion owing to failure of the machinery controls or other parts of the machinery, so as to prevent danger.

See cross references for *Machinery hazards*

Major injury

A major injury is classified as:

- any fracture, other than to the fingers, thumbs or toes
- any amputation
- dislocation of the shoulder, hip, knee or spine
- loss of sight (whether temporary or permanent)

- a chemical or hot metal burn to the eye or any penetrating injury to the eye
- any injury resulting from electric shock or electrical burn (including any electrical burn caused by arcing or arcing products) leading to unconsciousness or requiring resuscitation or admittance to hospital for more than 24 hours
- any other injury:
 - leading to hypothermia, heat-induced illness or to unconsciousness
 - requiring resuscitation, or
 - requiring admittance to hospital for more than 24 hours
- loss of consciousness caused by asphyxia or by exposure to a harmful substance or biological agent
- either of the following conditions which result from the absorption of any substance by inhalation, ingestion or through the skin:
 - acute illness requiring medical treatment
 - loss of consciousness
- acute illness which requires medical treatment where there is reason to believe that this resulted from exposure to a biological agent or its toxins or infected material.

[Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995; Schedule 1]



1(c) Principal regulations

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995



2(a) Health and safety in practice

Accident costs

Accident investigation procedures

Major incidents

Total loss control



3(a) Tables and figures

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations – Reporting requirements



3(b) Forms

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995:

(a) Report of an injury or dangerous occurrence (Form 2508)

(b) Report of a disease (Form 2508A)



4. Health and Safety Glossary

Gas incident

Reportable event

Manual handling operations

Any transporting or supporting of a load (including the lifting, putting down, pushing, pulling, carrying or moving thereof) by hand or bodily force.

[Manual Handling Operations Regulations 1992]



1(c) Principal regulations

Manual Handling Operations Regulations 1992



1(e) HSE guidance

Manual handling



2(b) Hazard checklists

Manual handling operations



3(a) Tables and figures

Manual handling – lifting and lowering

Manual handling operations regulations – flow chart



3(b) Forms

Manual handling of loads – example of an assessment checklist



4. Health and Safety Glossary

Manual handling operations

Means of escape

A means of escape in case of fire is a continuous route by way of a space, room, corridor, staircase, doorway or other means of passage, along or through which persons can travel from wherever

they are in a building to the safety of the open air at ground level by their own unaided efforts.



1(c) Principal regulations

Building Regulations 2000

Regulatory Reform (Fire Safety) Order 2005



2(a) Health and safety in practice

Risk assessment



2(b) Hazard checklists

Fire safety



4. Health and Safety Glossary

Compartmentation

Emergency lighting

Fire instructions

Near miss

An unplanned and unforeseeable event that could have resulted in death, human injury, property damage or other form of loss.



3(a) Tables and figures

Accident indices

Accident ratios

Neutralisation

A control strategy for hazardous substances whereby a neutralising compound is added to a highly dangerous compound, e.g. acid to alkali, thereby reducing the immediate danger. Many hazardous wastes are neutralised prior to transportation.



1(c) Principal regulations

Control of Substances Hazardous to Health Regulations 2002



1(d) Approved codes of practice

Control of substances hazardous to health



2(b) Hazard checklists

Hazardous substances

Noise-induced hearing loss (occupational deafness)

Exposure to noise at work may affect hearing in three ways:

- temporary threshold shift: a short-term effect, i.e. a temporary reduction in the ability to hear, which may follow exposure to excessive noise, such as that from rifle fire or certain types of machinery, such as chain saws
- permanent threshold shift: a permanent effect where the limit of tolerance is exceeded in terms of the duration and level of exposure to noise and individual susceptibility to noise
- acoustic trauma: a condition which involves sudden damage to the ear from short-term intense exposure or even from one single exposure, e.g. gun fire, major explosions.

Noise-induced hearing loss is a prescribed occupational disease.



1(c) Principal regulations

Control of Noise at Work Regulations 2005



2(a) Health and safety in practice

Dose record

Health records

Health surveillance



2(b) Hazard checklists

Noise



3(a) Tables and figures

Decibels (addition of)

Noise control methods

Noise control programme – Typical structure

Octave bands (standard range)



3(b) Forms

Noise exposure record



4. Health and Safety Glossary

Action levels, exposure action levels and exposure limit values

Audiometry

Dose

Impulse noise

L_{EQ} (equivalent continuous sound level)

Octave band analysis

Reduced time exposure (limitation)

Non-mechanical hazards

Those hazards associated with machinery but not arising from machinery motion, e.g. risk of burns from hot surfaces, contact with hazardous substances used in machines, exposure to machinery noise and airborne contaminants emitted from machines.



1(c) Principal regulations

Provision and Use of Work Equipment Regulations 1998



1(d) Approved codes of practice

Safe use of work equipment



2(a) Health and safety in practice

Planned preventive maintenance

Risk assessment



2(b) Hazard checklists

Work equipment



4. Health and Safety Glossary

Contact hazard

Non-operational parts (machinery)

Those functional parts of machinery which convey power or motion to the operational parts, e.g. transmission machinery.



1(c) Principal regulations

Provision and Use of Work Equipment Regulations 1998



1(d) Approved codes of practice

Safe use of work equipment



2(a) Health and safety in practice

Planned preventive maintenance

Risk assessment



2(b) Hazard checklists

Work equipment

Occupational health

This is variously defined as:

- a branch of preventive medicine concerned with health problems caused by or manifest at work
- a branch of preventive medicine concerned with the relationship of work to health and the effects of work upon the worker.



1(b) Statutes

Health and Safety at Work etc. Act 1974

Social Security Act 1975



1(c) Principal regulations

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Noise at Work Regulations 2005

Control of Substances Hazardous to Health Regulations 2002

Control of Vibration at Work Regulations 2005

Health and Safety (Display Screen Equipment) Regulations 1992

Ionising Radiations Regulations 1999

Management of Health and Safety at Work Regulations 1999

Manual Handling Operations Regulations 1992

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995



1(d) Approved codes of practice

Control of asbestos at work

The management of asbestos in non-domestic premises

Work with asbestos insulation, asbestos coating and asbestos insulation board

Work with asbestos that does not normally require a licence

Work with ionising radiation

Control of lead at work

The control of Legionella bacteria in hot water systems

Safe use of pesticides for non-agricultural purposes

Control of substances hazardous to health in the production of pottery

Control of substances hazardous to health

Control of substances hazardous to health in fumigation operations



1(e) HSE guidance notes

A comprehensive guide to managing asbestos in premises [HS(G)227]

A Guide to the Work in Compressed Air Regulations 1989 [L102]

An introduction to local exhaust ventilation [HS(G)37]

Workplace exposure limits [EH40]



2(a) Health and safety in practice

BS8800: Guide to Occupational Health and Safety Management Systems

Dose record

Health records

Health surveillance

Information and instruction

Risk assessment



3(a) Tables and figures

Airborne contaminants: comparison of particle size ranges

Hazardous substances that can be revealed by medical analysis

Noise control methods

Optimum working temperatures

Reporting of Injuries, Diseases and Dangerous Occurrences

Regulations – Reporting requirements



3(b) Forms

Control of Substances Hazardous to Health Regulations – Health Risk Assessment

Noise exposure record

Occupational health:

(a) Pre-employment health questionnaire

(b) Health questionnaire

(c) *Food handler's clearance certificate*

(d) *Fitness certificate*

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 – Report of a case of disease (Form 2508A)



4. Health and Safety Glossary

Absorption

Action levels, exposure action levels and exposure limit values

Acute effect

Air sampling (air monitoring)

Audiometry

Biological hazards

Biological monitoring

Carcinogen

Comfort ventilation

Dose

Dose–effect relationship

Dose–response relationship

Health risk assessment

Health surveillance

Impulse noise

Ionising radiation

Local effect

Occupational hygiene

Prescribed disease

Primary monitoring

Reduced time exposure (limitation)

Reportable disease

Risk avoidance

Route of entry

Secondary monitoring

Substances hazardous to health

Target organs and target systems

Threshold dose

Toxicity

Toxicological assessment

Toxicology

Occupational hygiene

The identification, measurement and control of contaminants and other phenomena, such as noise and radiation, which would otherwise have unacceptable adverse effects on the health of people exposed to them.

The four principal areas of occupational hygiene practice are:

- identification/recognition of the specific contaminant
- measurement, using an appropriate measuring technique
- evaluation against an existing standard e.g. Workplace Exposure Limits
- prevention or control of exposure.

See cross reference for *Occupational health*

Octave band analysis

A sound measurement technique which enables the way sound is distributed throughout the frequency spectrum to be identified. The sound is divided into octave bands and measured at the geometric centre frequency of each band.

Octave band analysis is used for assessing the risk of occupational deafness, in the analysis of machinery noise and specification of remedial measures, and in the specification of certain types of hearing protection.

Operational parts (machinery)

Those parts which perform the primary output function of a machine, namely the manufacture of a product or component, e.g. the chuck and drill bit on a vertical drill.



1(c) Principal regulations

Provision and Use of Work Equipment Regulations 1998



1(d) Approved codes of practice

Safe use of work equipment



2(a) Health and safety in practice

Planned preventive maintenance

Risk assessment



2(b) Hazard checklists

Work equipment

Organisational characteristics

Organisational characteristics which influence safety-related behaviour include:

- the need to produce a positive climate in which health and safety is seen by both management and employees as being fundamental to the organisation's day-to-day operations, that is, they must create a positive safety culture;
- the need to ensure that policies and systems which are devised for the control of risk from the organisation's operations take proper account of human capabilities and fallibilities;
- commitment to the achievement of progressively higher standards which is shown at the top of the organisation and cascaded through successive levels of same;
- demonstration by senior management of their active involvement, thereby galvanising managers throughout the organisation into action;
- leadership, whereby an environment is created which encourages safe behaviour.

[Reducing error and influencing behaviour – HS(G)48]



1(c) Principal regulations

Management of Health and Safety at Work Regulations 1999



1(d) Approved codes of practice

Management of health and safety at work



1(e) HSE guidance notes

Reducing error and influencing behaviour

Successful health and safety management

**2(a) Health and safety in practice***Statements of health and safety policy**Successful health and safety management***3(a) Tables and figures***Key elements of successful health and safety management***4. Health and Safety Glossary***Auditing**Human factors**Job design**Joint consultation**Risk avoidance**Risk control**Risk reduction**Risk retention**Risk transfer**Safety culture*

Permit to work

A form of safe system of work operated where there is a high degree of foreseeable risk.

A formal safety control system designed to prevent accidental injury to personnel, damage to plant, premises and particularly when work with a foreseeably high hazard content is undertaken and the precautions required are numerous and complex.

**1(b) The principal statutes***Health and Safety at Work etc. Act 1974***1(c) Regulations***Confined Spaces Regulations 1997**Electricity at Work Regulations 1989**Ionising Radiations Regulations 1999***2(a) Health and safety in practice***Competent persons**Safe systems of work*



2(b) Hazard checklists

Electrical equipment

Maintenance work

Radiation hazards



4. Health and Safety Glossary

Confined space

Hot work

Job safety analysis

Personal protective equipment (PPE)

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 him against one or more risks to his health and safety, and any addition or accessory designed to meet this objective.

[Personal Protective Equipment at Work Regulations 1992]
[Control of Substances Hazardous to Health Regulations 2002]

Any device or appliance designed to be worn or held by an individual for protection against one or more health and safety hazards; and shall also include:

- a unit constituted by several devices or appliances which have been integrally combined by the manufacturer for the protection of an individual against one or more potentially simultaneous risks;
- a protective device or appliance combined, separably or inseparably, with non-protective equipment worn or held by an individual for the execution of a specific activity; and
- interchangeable components which are essential to its satisfactory functioning and used exclusively for such equipment.

[Personal Protective Equipment Regulations 2002]



1(c) Principal regulations

Construction (Head Protection) Regulations 1989

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002
Control of Noise at Work Regulations 2005
Control of Substances Hazardous to Health Regulations 2002
Control of Vibration at Work Regulations 2005
Ionising Radiations Regulations 1999
Personal Protective Equipment at Work Regulations 1992



1(e) HSE guidance notes

Personal protective equipment at work



2(b) Hazard checklists

Noise

Personal protective equipment



3(a) Tables and figures

*Personal Protective Equipment at Work Regulations 1992 –
 Specimen risk survey table for the use of personal protective equipment*

Place of safety

Generally interpreted as a location in the open air where people can freely walk away from a building and not be affected by heat or smoke from a fire in that building.



1(c) Principal regulations

Regulatory Reform (Fire Safety) Order 2005

Prescribed disease

A disease may be prescribed if:

- (a) it ought to be treated, having regard to its causes and incidence and other relevant considerations, as a risk of occupation and not a risk common to all persons; and
- (b) it is such that, in the absence of special circumstances, the attribution of particular cases to the nature of the employment can be established with reasonable certainty.

[Social Security Act 1975]

Current requirements relating to prescribed occupational diseases are covered by the Social Security (Industrial Injuries) (Prescribed Diseases) Regulations 1985 and various amendments to these Regulations.



1(b) The principal statutes

Social Security Act 1975

Primary monitoring

An area of occupational health practice dealing with the clinical observation of sick people who may seek advice and/or treatment.



2(a) Health and safety in practice

Health records

Health surveillance



3(a) Tables and figures

Hazardous substances that can be revealed by medical analysis



3(b) Forms

Occupational health:

(a) Pre-employment health questionnaire

(b) Health questionnaire

(c) Food handler's clearance certificate

(d) Fitness certificate



4. Health and Safety Glossary

Absorption

Acute effect

Chronic effect

Dose

Dose-response relationship

Health risk assessment

Health surveillance

Occupational health

Prescribed disease

Reportable disease

Product liability

An area of health and safety law concerned with both the criminal and civil liabilities of all those in the manufacturing chain towards consumers of their products. Criminal liability is covered in the HSWA (Sec 6) and other legislation, such as the Consumer Protection Act 1987. Injury sustained as a result of using a defective product could result in a civil claim against a defendant based on negligence.

Principal duties rest with designers, manufacturers and importers of products, secondary duties with wholesalers, retailers and other persons directly or indirectly involved in the supply chain.



1(b) Statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Lifts Regulations 1997

Pressure Systems Safety Regulations 2000

Simple Pressure Vessels (Safety) Regulations 1991

Prohibition

A control strategy in accident and ill-health prevention exercised where there is no known form of operator protection available. This may entail prohibiting the use of a substance, system of work, operational practice or machine where the level of danger is very high.

An inspector is empowered to serve a prohibition notice where activities will, or may, involve a risk of serious personal injury.



1(a) Statutes

Health and Safety at Work etc. Act 1974

Reduced time exposure (limitation)

A strategy directed to limiting the exposure of people to, for instance, noise or hazardous substances, by specifying the maximum exposure time permissible in any working period, e.g. eight hours. This strategy forms the basis for long-term and short-term exposure limits.



1(c) Principal regulations

Control of Noise at Work Regulations 2005

Control of Vibration at Work Regulations 2005

Ionising Radiations Regulations 2005

Reduced voltage

A form of protection against electric shock, the most commonly used reduced voltage system being the 110 volt centre point earthed system. Here, the secondary winding of the transformer providing the 110 volt supply is centre tapped to earth, thereby ensuring that at no part of the 110 volt system can the voltage to earth exceed 55 volts.



1(e) HSE guidance notes

Electricity at Work: Safe working practices

Electrical safety on construction sites

Reportable disease

Under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995, certain diseases and conditions arising from work activities affecting a person at work, and listed in Schedule 3, must be reported by an employer to the relevant enforcing authority.

Reportable diseases are classified in the following groups:

1. Conditions due to physical agents and the physical demands of work

2. Infections due to biological agents
3. Conditions due to substances.



1(c) Principal regulations

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995



2(a) Health and safety in practice

Accident investigation procedures



3(a) Tables and figures

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations – Reporting requirements



3(b) Forms

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995

(b) Report of a case of disease (Form 2508A)

Reportable event

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995 apply to 'events' which arise out of or in connection with work, namely all deaths, certain injuries resulting from accidents, instances of specified diseases and defined dangerous occurrences.

Where any of the events listed below arise out of work activities, it must be notified by quickest practicable means (e.g. telephone or fax), and subsequently reported (within 10 days) on the appropriate form, to the enforcing authority.

The events are:

- the death of any person at work as a result of an accident, whether or not they are at work
- someone who is at work suffering a major injury as a result of an accident arising out of or in connection with work
- someone who is not at work (e.g. a member of the public) suffers an injury as a result of an accident and is taken from the scene to a hospital for treatment, or if the accident happens at a hospital, suffers a major injury

- one of the list of specified dangerous occurrences takes place
- someone at work is unable to do their normal work for more than 3 days as a result of an injury caused by an accident at work
- the death of an employee, if this occurs some time after a reportable injury which led to the employee's death, but not more than 1 year afterwards
- a person at work suffers one of a number of specified diseases provided that a doctor diagnoses the disease and the person's job involves a specified work activity.

The duty to notify and report rests with the responsible person, i.e. the employer, a self-employed person or person in control of the premises.

A report must be made of the following circumstances:

- a conveyor of flammable gas through a fixed pipe distribution system or the filler, importer or supplier of liquefied petroleum gas (LPG) in a refillable container, must report if they learn that someone has died or suffered a major injury arising out of, or in connection with, that gas
- any registered installation business must report if it finds that there is, in any premises, a gas fitting or associated flue or ventilation arrangement which could be dangerous.

A responsible person must keep a record of the above events.

There is a defence available for a person to prove that he was not aware of the event requiring him to notify or send a report to the relevant authority, and that he had taken all reasonable steps to have such events brought to his notice.



1(c) Principal regulations

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995



2(a) Health and safety in practice

Accident costs

Accident investigation

Major incidents

**3(a) Tables and figures**

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations – Reporting requirements

**3(b) Forms**

Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995:

(a) *Report of an injury or dangerous occurrences (Form 2508)*

(b) *Report of a case of disease (form 2508A).*

Risk

Risk expresses the likelihood or probability that the harm from a particular hazard will be realised.

In relation to the exposure of an employee to a substance hazardous to health, means the likelihood that the potential for harm to health of a person will be attained under the conditions of use and exposure and also the extent of that harm.

[Control of Substances Hazardous to Health Regulations 2002]

**1(c) Principal regulations**

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Major Accident Hazards Regulations 1999

Control of Noise at Work Regulations 2005

Control of Substances Hazardous to Health Regulations 2002

Control of Vibration at Work Regulations 2005

Ionising Radiations Regulations 1999

Lifting Operations and Lifting Equipment Regulations 1998

Management of Health and Safety at Work Regulations 1999

Manual Handling Operations Regulations 1992

Personal Protective Equipment at Work Regulations 1992

Regulatory Reform (Fire Safety) Order 2005

**2(a) Health and safety in practice**

Benchmarking

BS 8800: Guide to Occupational Health and Safety Management Systems

Management oversight and risk tree analysis

Risk assessment

Successful health and safety management



3(a) Tables and figures

Probability index

Severity index



4. Health and Safety Glossary

Generic risk assessment

Health risk assessment

Risk avoidance

This strategy involves a conscious decision on the part of an employer to avoid completely a particular risk by, for instance, discontinuing or modifying the activities or operations that created the risk. An example might be the replacement of manual handling operations by a mechanical handling system.



1(a) Legal background

Principles of Prevention



2(a) Health and safety in practice

Risk management

Risk control

This is one of the outcomes of the risk management process. Risk control may be through risk avoidance, risk retention, risk transfer or risk reduction (see individual entries).



1(a) Legal background

Principles of prevention



2(a) Health and safety in practice

Risk management

Risk reduction

Risk reduction, as part of the risk management process, implies the implementation within an organisation of some form of loss control programme directed at protecting the organisation's assets (manpower, machinery, materials and money) from wastage caused by accidental loss.

Risk reduction strategies operate in two stages:

- collection of data on as many loss-producing incidents as possible and the installation of a programme of remedial action
- the collation of all areas where losses arise from loss-producing incidents, e.g. death, major injury, property damage, and the formulation of strategies directed at reducing these losses.



1(a) Legal background

Principles of prevention



2(a) Health and safety in practice

Risk management

Risk retention

A risk management strategy whereby risk is retained within an organisation and any consequent loss is financed by the organisation. There are two features of risk retention:

Risk retention with knowledge

In this case a conscious decision is made to meet any resulting loss from within an organisation's resources. Decisions on which risks that should be retained can only be made after all the risks have been identified, measured and evaluated.

Risk retention without knowledge

This generally arises from a lack of knowledge of the existence of a risk or an omission to insure against that risk. Situations

where risks have not been identified and evaluated can result in this form of risk retention.



2(a) Health and safety in practice

Risk management

Risk transfer

Risk transfer implies the legal assignments of the costs of certain potential losses from one party to another, e.g. from an organisation to an insurance company.



2(a) Health and safety in practice

Risk management

Route of entry

There are three primary routes of entry of hazardous substances into the body, namely by inhalation, pervasion and ingestion. Secondary routes of entry include injection, inoculation and implantation.



1(c) Principal regulations

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002



2(a) Health and safety in practice

Health records

Health surveillance

Information and instruction



2(b) Hazard checklists

Hazardous substances



3(a) Tables and figures

Airborne contaminants: comparison of particle size ranges
Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations 2002
Hazardous substances that can be revealed by medical analysis
Safety data sheets – obligatory headings



3(b) Forms

Control of Substances Hazardous to Health Regulations 2002 – Health Risk Assessment



4. Health and Safety Glossary

Absorption
Active monitoring
Acute effect
Aerosol
Air sampling (air monitoring)
Carcinogen
Chemical hazards
Chronic effect
Dilution ventilation
Dose
Dose–effect relationship
Dose–response relationship
Hazardous substances
Health risk assessment
Health surveillance
Local effect
Local exhaust ventilation
Long-term exposure limit
Primary monitoring
Secondary monitoring
Substances hazardous to health
Target organs and target systems
Threshold dose
Toxicity
Toxicological assessment
Toxicology
Workplace exposure limit

Safety culture

Both the HSE and CBI have provided guidance on the need for organisations to develop and promote the right safety culture.

The main principles involved, which involve the establishment of a safety culture, accepted and observed generally, are:

- the acceptance of responsibility at and from the top, exercised through a clear chain of command, seen to be actual and felt throughout the organisation
- a conviction that high standards are achievable through proper management
- setting and monitoring of relevant objectives/targets, based upon satisfactory internal information systems
- systematic identification and assessment of hazards and the devising and exercise of preventive systems which are subject to audit and review; in such approaches, particular attention is given to the investigation of error
- immediate rectification of deficiencies; and
- promotion and reward of enthusiasm and good results.

[Rimington, J.R. (1989) The Onshore Safety Regime, HSE Director General's Submission to the Piper Alpha Inquiry, December 1989]

A company wishing to improve its performance will need to judge its existing practices against a number of features essential to a sound safety culture, namely:

- leadership and commitment from the top which is genuine and visible; this is the most important feature
- acceptance that it is a long-term strategy which requires sustained effort and interest
- a policy statement of high expectations and conveying a sense of optimism about what is possible supported by adequate codes of practice and safety standards
- health and safety should be treated as other corporate aims, and adequately resourced
- it must be a line management responsibility
- 'ownership' of health and safety must permeate at all levels of the work force; this involves employee involvement, training and communication

- realistic and achievable targets should be set and performance measured against them
- incidents should be thoroughly investigated
- consistency of behaviour against agreed standards should be achieved by auditing and good safety behaviour should be a condition of employment
- deficiencies revealed by an investigation or audit should be remedied promptly
- management must receive adequate and up-to-date information to be able to assess performance.

[Developing a Safety Culture, CBI, 1989]



2(a) Health and safety in practice

OHSAS 18001: A Pro-active Approach to Health and Safety Management
Successful Health and Safety Management

Safety propaganda

An important feature of communicating health and safety themes, hazards and messages to people, it may take the form of safety posters, films, demonstrations and exhibitions, directed at increasing awareness.



1(c) Principal regulations

Health and Safety (Safety Signs and Signals) Regulations 1996
Safety Signs Regulations 1980



2(a) Health and safety in practice

Information and instruction
Safety signs

Safety representative

The Safety Representatives and Safety Committees Regulations 1977 are concerned with the appointment by recognised trade unions of safety representatives, the functions of safety

representatives and the establishment and operation of safety committees.

The functions of a safety representative include:

- to investigate potential hazards and dangerous occurrences and examine the causes of accidents
- to investigate health and safety complaints by the employees they represent
- to make representations to the employer on matters arising from investigations
- to make representations to the employer on general matters affecting health, safety and welfare
- to carry out inspections
- to represent employees in consultation with enforcement officers
- to receive information from enforcement officers
- to attend meetings of safety committees in their capacity as a safety representative in connection with the above functions.



1(c) Principal regulations

Safety Representatives and Safety Committees Regulations 1977



1(d) Approved codes of practice

Safety representatives and safety committees



4. Health and Safety Glossary

Joint consultation

Secondary monitoring

An area of occupational health practice directed at controlling health hazards which have already been recognised, e.g. monitoring for occupational deafness by audiometry.



2(a) Health and safety in practice

Health records

Health surveillance



4. Health and Safety Glossary

Absorption

Action levels, exposure levels and exposure limit values

Audiometry

Biological monitoring

Health surveillance

Occupational health

Primary monitoring

Segregation

This is a strategy aimed at controlling the hazards arising from toxic substances and certain physical hazards, such as noise and radiation. Segregation may take a number of forms:

- segregation by distance (separation)
- segregation by age
- segregation by time
- segregation by sex
- segregation by physiological criteria.



2(a) Health and safety in practice

Health surveillance



4. Health and Safety Glossary

Health risk assessment

Health surveillance

Occupational health

Reduced time exposure (limitation)

Statutory examination

With reference to Regulation 32 of the Provision and Use of Work Equipment Regulations 1998 thorough inspection in relation to a thorough examination

- means a thorough examination by a competent person
- includes testing the nature and extent of which are appropriate for the purpose described in the regulation.



1(c) Principal regulations

Provision and Use of Work Equipment Regulations 1998



2(a) Health and safety in practice

Competent persons

Statutory inspection

With reference to Regulation 6 of the Provision and Use of Work Equipment Regulations 1998

- such visual or more rigorous inspection by a competent person as is appropriate for the purpose described in the regulation
- where it is appropriate to carry out testing for the purpose, includes testing the nature and extent of which are appropriate for the purpose.



1(c) Principal regulations

Provision and Use of Work Equipment Regulations 1998



2(a) Health and safety in practice

Competent persons

Substance hazardous to health

Any substance (including any preparation):

- (a) which is listed in Part 1 of the Approved Supply List as dangerous for supply within the meaning of the Chemicals (Hazard Information and Packaging for Supply) Regulations and for which an indication of danger specified for the substance in Part V of that list is very toxic, toxic, harmful, corrosive or irritant;
- (b) for which the HSC has approved a maximum exposure limit or an occupational exposure standard;
- (c) which is a biological agent;
- (d) dust of any kind, except dust which is a substance within paragraph (a) or (b) above, when present at concentration

in air equal to or greater than:

- 10 mg/m³, as a time-weighted average over an 8-hour period of total inhalable dust; or
- 4 mg/m³, as a time-weighted average over an 8-hour period of respirable dust.

(e) which, not being a substance falling within subparagraphs (a) to (d), because of its chemical or toxicological properties and the way it is used or is present at the workplace creates a risk to health.

[Control of Substances Hazardous to Health Regulations 2002]



1(c) Principal regulations

Control of substances Hazardous to Health Regulations 2002



1(d) Approved codes of practice

Control of substances hazardous to health

Control of substances hazardous to health in fumigation operations



2(b) Hazard checklists

Hazardous substances



3(c) Tables and figures

Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Substitution

A prevention strategy whereby a less hazardous substance, process or work activity is substituted for a more dangerous one.



Health and Safety Glossary

Chemical hazards

Hazardous substances

Target organ and target system

Certain toxic substances have a direct or indirect effect on specific body organs (target organs) and body systems (target systems).

Target organs include the liver, lungs, bladder, brain and skin. Target systems include the respiratory system, circulatory system, lymphatic system and reproductive system.



1(b) Hazard checklists

Hazardous substances



4. Health and Safety Glossary

Absorption

Dose

Dose–effect relationship

Dose–response relationship

Occupational health

Toxicity

Toxicological assessment

Toxicology

Threshold dose

A concentration of an offending agent in the body above which an adverse body response will take place.



4. Health and Safety Glossary

Absorption

Dose

Dose–effect relationship

Dose–response relationship

Toxicity

Toxicological assessment

Toxicology

Workplace exposure limits

Toxicity

The ability of a chemical molecule to produce injury once it reaches a susceptible site in or on the body.

**3(a) Tables and figures**

Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

**4. Health and Safety Glossary**

Absorption

Dose

Dose–effect relationship

Threshold dose

Toxicological assessment

Workplace exposure limits

Toxicological assessment

The collection, assembly and evaluation of data on a potentially toxic substance and the conditions of its use, in order to determine:

- the danger to human health
- systems for preventing or controlling the danger
- the detection and treatment of overexposure and,
- where such information is insufficient, the need for further investigation.

The following factors should be considered in toxicological assessment:

- the name of the substance, including any synonyms
- a physical and/or chemical description of the substance
- information on potential exposure situations
- details of occupational exposure limits
- general toxicological aspects, such as
 - the route of entry into the body
 - the mode of action in or on the body
 - signs and symptoms
 - diagnostic tests
 - treatment, and
 - disability potential.

**1(c) Principal regulations**

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002



2(b) Hazard checklists

Hazardous substances



3(a) Tables and figures

Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations

Safety data sheets – Obligatory headings



3(b) Forms

Control of Substances Hazardous to Health Regulations 2002 – Health Risk Assessment



4. Health and Safety Glossary

Absorption

Acute effect

Air sampling (air monitoring)

Chemical hazards

Dose–effect relationship

Dose–response relationship

Hazardous substances

Health risk assessment

Health surveillance

Route of entry

Substances hazardous to health

Target organs and target systems

Threshold dose

Toxicology

Workplace exposure limits

Toxicology

The study of the body's responses to toxic substances.

See cross references for *Toxicological assessment*

Welfare amenity provisions

Detailed requirements relating to the provision and maintenance of welfare amenities are covered in the Workplace (Health, Safety and Welfare) Regulations 1992 and accompanying Approved Code of Practice.

Duties on employers relating to welfare amenities include the provision of:

- suitable and sufficient sanitary conveniences and washing facilities
- an adequate supply of wholesome drinking water
- accommodation for clothing
- facilities for changing clothing
- facilities for rest and the taking of meals.

Schedule 1 to the regulations covers provisions with regard to the number of sanitary fittings and washing facilities to be provided.



1(b) Statutes

Health and Safety at Work etc. Act 1974



1(c) Principal regulations

Construction (Health, Safety and Welfare) Regulations 1996

Control of Asbestos at Work Regulations 2002

Control of Lead at Work Regulations 2002

Control of Substances Hazardous to Health Regulations 2002

Ionising Radiations Regulations 1999

Workplace (Health, Safety and Welfare) Regulations 1992



3(a) Tables and figures

Water closets and urinals for men

Water closets and wash station provision

Workplace exposure limits

HSE Guidance Note EH 40 'Workplace exposure limits', which is revised on a regular basis, lists details of occupational exposure

limits (OELs) set under the COSHH Regulations in order to help protect the health of workers. The list of WELs, unless otherwise stated, relates to personal exposure to substances hazardous to health in the workplace only. They are intended to be used for normal working conditions in factories or other workplaces.

Workplace exposure limits (WELs) are concentrations of hazardous substances in the air, averaged over a specified period of time referred to as a time-weighted average (TWA). Two time periods are used:

- long term (8 hours)
- short term (15 minutes).

Long-term and short-term exposure limits

Effects of exposure to substances hazardous to health vary considerably depending upon the nature of the substance and the pattern of exposure. Some effects require prolonged or accumulated exposure.

Long-term (8-hour TWA) exposure limits (LTELs) are intended to control such effects by restricting the total intake by inhalation over one or more work shifts, depending upon the length of the shift. Other effects may be seen after brief exposure.

Short-term exposure limits (usually 15 minutes) (STELs) may be applied to control these effects. They are set to help prevent effects, such as eye irritation, which may occur following exposure for a few minutes. For those substances for which no STEL is specified, it is recommended that a figure of three times the LTEL be used as a guideline for controlling short-term peaks in exposure.

Some workplace activities give rise to frequent short (less than 15 minutes) periods of high exposure which, if averaged over time, do not exceed either an 8-hour TWA or a 15-minute TWA. Such exposures have the potential to cause harm and should be subject to reasonably practicable means of control unless a 'suitable and sufficient' risk assessment shows no risk to health from such exposures.

Regulation 7(7) of the COSHH Regulations states that:

‘Without prejudice to the requirement to prevent exposure, control of exposure to a substance hazardous to health shall only be treated as adequate if:

- (a) the principles of good practice for the control of exposure to substances hazardous to health set out in Schedule 2A are applied;
- (b) any *workplace exposure limit* is not exceeded; and
- (c) for a substance:
 - (i) which carries the risk phrase R45, R46 or R49, or for a substance or process which is listed in Schedule 1; or
 - (ii) which carries the risk phrase R42 or R42/43, or which is listed in section C of HSE publication *Asthma? Critical assessments of the evidence for agents implicated in occupational asthma* as updated from time to time, or any other substance which the risk assessment has shown to be a potential source of occupational asthma, exposure is reduced to as low a level as is reasonably practicable.’

WELs are listed in Schedule 1 to the Guidance Note.

However, the absence of a substance from the list of WELs does not indicate that it is safe. For these substances, exposure should be controlled to a level to which nearly all the working population could be exposed, day after day at work, without adverse effects on health.

Absorption through the skin

For most substances, the main route of entry into the body is by inhalation and the exposure limits given relate solely to exposure by this route. However, some substances have the ability to penetrate intact skin and become absorbed into the body, thus contributing to systemic toxicity. These substances are marked in the Table of values with an ‘Sk’ notation. The Advisory Committee on Toxic Substances (ACTS) has agreed the following criteria for assigning this notation.

The 'Sk' notation is assigned in cases where the available data or experience (or predictions made in the absence of actual data) suggest that exposure via the dermal route may:

- (a) make a substantial contribution to the body burden (when compared to the contribution attributable to inhalation exposure at the WEL); and
- (b) cause systemic effects, so that conclusions about exposure and health effects based solely on airborne concentration limits may be incompatible.

Units of measurement

In WELs, concentrations of airborne particles (fume, dust, etc.) are usually expressed in mg m^{-3} . In the case of dusts, the limits in the table refer to the 'inhalable' fraction unless specifically indicated as referring to the 'respirable' fraction. WELs for volatile substances are usually expressed in both parts per million by volume (p.p.m.) and milligrams per cubic metre (mg m^{-3}). For these substances, limits are set in ppm, and a conversion to mg m^{-3} is calculated.

European occupational exposure limits

The exposure limits listed in Table 1 are all British limits set under the COSHH Regulations. In some cases, these also reflect a European limit applicable in all EU Member States. These limits are currently known as *Indicative Occupational Exposure Limit Values (IOELVs)*.

IOELVs are health-based limits set under the Chemical Agents Directive (98/24/EC). The European Commission is advised on limits by its Scientific Committee on Occupational Exposure Limits (SCOEL). This committee evaluates the scientific information on hazardous substances and makes recommendations for the establishment of an IOELV. IOELVs are listed in Directives which Member States are obliged to implement by introducing national limits for the substances listed.



1(c) Principal regulations

Control of Substances Hazardous to Health Regulations 2002



1(d) Approved codes of practice

Control of substances hazardous to health



2(b) Hazard checklists

Hazardous substances



3(a) Tables and figures

Airborne contaminants: comparison of particle size ranges

Categories of danger – Chemicals (Hazard Information and Packaging for Supply) Regulations

Hazardous substances that can be revealed by medical analysis

Safety data sheet – Obligatory headings



3(b) Forms

Control of Substances Hazardous to Health Regulations 2002 – Health Risk Assessment

4. Health and Safety Glossary

Air sampling (air monitoring)

Chemical hazards

Dose

Dose–effect relationship

Dose–response relationship

Hazardous substances

Health risk assessment

Health surveillance

Occupational hygiene

Route of entry

Substances hazardous to health

Target organs and target systems

Threshold dose

Toxicity

Toxicological assessment

Toxicology

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PART 5

Appendices

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Appendix A: Accredited training courses in occupational health and safety

The following professional institutions promote and accredit training courses.

Institution of Occupational Safety and Health (IOSH)

Directing Safely
Managing Safely
Managing Client/Contractor Relationships
Managing Risk
Managing Safely in Policing Services
Managing with Environmental Responsibilities
Working Safely
Working with Environmental Responsibilities
Health Care: Working Safely
Health Care: Risk and Safety Management

Chartered Institute of Environmental Health (CIEH)

Foundation Certificate in Health and Safety
Risk Assessment: Principles and practice
Supervising Health and Safety
Advanced Certificate in Health and Safety in the Workplace
Principles of COSHH
Principles of Manual Handling

National Examination Board in Occupational Safety and Health (NEBOSH)

Diploma Parts 1 and 2 in Occupational Safety and Health

Level 4 Diploma in Occupational Safety and Health

Specialist Diploma in Environmental Management

National General Certificate in Occupational Safety and Health

International General Certificate in Occupational Safety and Health

National Certificate in Construction Safety and Health

Royal Institute of Public Health (RIPH)

Foundation Certificate in Health and Safety in the Workplace

Royal Society of Health (RSH)

Foundation Certificate in Health and Safety in the Workplace

Advanced Diploma in Health and Safety at Work

Appendix B: Documentation and record keeping requirements

Current health and safety legislation places considerable emphasis on the documentation of policies, procedures and systems of work and the maintenance of certain records.

The following are some of the documents and records that are required to be produced and maintained or may be required to be shown as evidence of compliance with health and safety legislation.

- Statement of Health and Safety Policy (Health and Safety at Work etc. Act 1974)
- Risk assessments in respect of:
 - workplaces [Management of Health and Safety at Work Regulations 1999 and Workplace (Health, Safety and Welfare) Regulations 1992]
 - work activities [Management of Health and Safety at Work Regulations 1999 and Workplace (Health, Safety and Welfare) Regulations 1992]
 - work groups [Management of Health and Safety at Work Regulations]
 - new or expectant mothers [Management of Health and Safety at Work Regulations 1999]
 - young persons [Management of Health and Safety at Work Regulations 1999]
 - work equipment [Provision and Use of Work Equipment Regulations 1998]
 - personal protective equipment [Personal Protective Equipment Regulations 1992]
 - manual handling operations [Manual Handling Operations Regulations 1992]
 - display screen equipment [Health and Safety (Display Screen Equipment) Regulations 1992]

- substances hazardous to health [Control of Substances Hazardous to Health Regulations 2002]
- significant exposure to lead [Control of Lead at Work Regulations 2002]
- noise at or above a lower exposure action value, i.e.
 - (a) a daily or weekly personal noise exposure of 80 dB (A-weighted); and
 - (b) a peak sound pressure of 135 dB (C-weighted) [Control of Noise at Work Regulations 2005]
- work liable to expose employees to vibration [Control of Vibration at Work Regulations 2005]
- before a radiation employer commences a new activity involving work with ionising radiation [Ionising Radiations Regulations 1999]
- the presence or otherwise of asbestos in non-domestic premises [Control of Asbestos at Work Regulations 2002]
- work at height [Work at Height Regulations 2005]
- where a dangerous substance is or is liable to be present at the workplace [Dangerous Substances and Explosive Atmospheres Regulations 2002]
- Safe systems of work, including permits to work and method statements [Health and Safety at Work etc Act 1974, Construction (Design and Management) Regulations 1994, Confined Spaces Regulations 1997, Control of Substances Hazardous to Health Regulations 2002, Work in Compressed Air Regulations 1996]
- Pre-tender stage health and safety plan and construction phase health and safety plan [Construction (Design and Management) Regulations 1994]
- Planned preventive maintenance schedules [Workplace (Health, Safety and Welfare) Regulations 1992 and Provision and Use of Work Equipment Regulations 1998]
 - Cleaning schedules [Workplace (Health, Safety and Welfare) Regulations 1992]
- Written scheme of examination for specific parts of an installed pressure system or of a mobile system and the

last report relating to a system by a competent person [Pressure Systems Safety Regulations 2000]

- Written plan of work identifying those parts of a premises where asbestos is or is liable to be present in a premises and detailing how that work is to be carried out safely and without risk to health [Control of Asbestos at Work Regulations 2002]
- Records of examinations and tests of exhaust ventilation equipment and respiratory protective equipment and of repairs carried out as a result of those examinations and tests [Control of Lead at Work Regulations 1999, Control of Substances Hazardous to Health Regulations 2002 and Control of Asbestos at Work Regulations 2002]
- Record of air monitoring carried out in respect of:
 - specified substances or processes; and
 - lead
 - asbestos

[Control of Substances Hazardous to Health Regulations 2002, Control of Lead at Work Regulations 1998 and Control of Asbestos at Work Regulations 2002]

- Record of examination of respiratory protective equipment [Ionising Radiations Regulations 1999]
- Records of air monitoring in cases where exposure to asbestos is such that a health record is required to be kept [Control of Asbestos at Work Regulations 2002]
- Personal health records [Control of Lead at Work Regulations 2002, Ionising Radiations Regulations 1999, Control of Substances Hazardous to Health Regulations 2002 and Control of Asbestos at Work Regulations 2002]
- Personal dose records [Ionising Radiations Regulations 1999]
- Record of quantity and location of radioactive substances [Ionising Radiations Regulations 1999]
- Record of investigation of certain notifiable occurrences involving release or spillage of a radioactive substance [Ionising Radiations Regulations 1999]

- Record of suspected overexposure to ionising radiation during medical exposure [Ionising Radiations Regulations 1999]
- Major Accident Prevention Policy [Control of Major Accident Hazards Regulations 1999]
- Off-Site Emergency Plan [Control of Major Accident Hazards Regulations 1999]
- Declaration of conformity by the installer of a lift and the manufacturer of a safety component for a lift together with any technical documentation or other information in relation to a lift or safety component required to be retained under the conformity assessment procedure [Lifts Regulations 1997]
- Declaration of conformity by the manufacturer of pressure equipment and assemblies (as defined) together with technical documentation or other information in relation to an item of pressure equipment and assemblies required to be retained under the conformity assessment procedure used [Pressure Equipment Regulations 1999]
- Any technical documentation or other information required to be retained under a conformity assessment procedure and a periodic inspection procedure [Transportable Pressure Vessels Regulations 2001]
- Procedures for serious and imminent danger and for danger areas [Management of Health and Safety at Work Regulations 1999]
- Emergency procedure to protect the safety of employees from an accident, incident or emergency related to the presence of a dangerous substance at the workplace [Dangerous Substances and Explosive Atmospheres Regulations 2001]
- Contingency plan in the event of a radiation accident [Ionising Radiations Regulations 1999]
- Local rules in respect of controlled areas and supervised areas [Ionising Radiations Regulations 1999]
- Written arrangements for non-classified persons [Ionising Radiations Regulations 1999]

Appendix C: Useful publications and information sources

Examination syllabuses and reports

National Examination Board in Occupational Safety and Health
Institution of Occupational Safety and Health
Chartered Institute of Environmental Health
Royal Society of Health
Royal Institute of Public Health
British Safety Council
Royal Society for the Prevention of Accidents

Health and safety books

General health and safety information

Dewis M. & Braune J. (2005): *Tolley's Health and Safety at Work Handbook*: LexisNexis/Tolley Publishing
Hughes P. & Ferret E. (2005): *Introduction to Health and Safety at Work*, 2nd edition: Elsevier/Butterworth-Heinemann
Fuller C. & Vassie L. (2004): *Health and Safety Management*: Pearson Education
Health and Safety Executive (1999): *Essentials of Health and Safety at Work*: HSE Books
Holt, Allan St.J. (2002): *Principles of Health and Safety at Work*, 6th edition: IOSH Publications Ltd
O'Donnell M. P. (2001): *Health Promotion in the Workplace*: Thomson Delmar Learning
Ridley J. (2004): *Health and Safety in Brief*, 3rd edition: Elsevier/Butterworth Heinemann
Ridley J. & Channing J. (2003): *Safety at Work*, 6th edition: Elsevier/Butterworth Heinemann

Stranks J. (2003): *A Manager's Guide to Health and Safety at Work*: Kogan Page

Stranks J. (2003): *Health and Safety for Management*: Highfield Publishing

Stranks J. (2005): *The Handbook of Health and Safety Practice*, 7th edition: Pearson Education

Case studies

Kletz T. A. (2001): *Learning from Accidents*, 3rd edition: Elsevier/Butterworth-Heinemann

Health and safety law

Barret B. & Howells R. (2000): *Occupational Health and Safety Law: Cases and Materials*: Cavendish Publishing

Goodman M. J. et al. (1999): *Encyclopedia of Health and Safety at Work*: Gee Publishing

Kloss D. (2005): *Occupational health law*, 4th edition: Blackwell Publishing

Reeve P. et al. (2000): *Health and Safety Competent Person's Handbook*: Gee Publishing

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- Williams N. & Harrison R. (2004): *Atlas of Occupational Health and Diseases*: Hodder Arnold

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- Bateman M. (2003): *Tolley's Practical Risk Assessment Handbook*, 4th edition: LexisNexis/Elsevier
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Fire safety

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Specific topics

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Lakha R. & Moore T. (2004): *Tolley's Handbook of Disaster and Emergency Management: Principles and Practice*: LexisNexis/ Elsevier

Ridley J. & Pearce D. (2005): *Safety with Machinery*, 2nd edition: Elsevier/Butterworth-Heinemann

Health and safety periodicals

Safety & Health Practitioner

Official magazine of the Institution of Occupational Safety and Health (IOSH), published by CMP. Also online at: www.shponline.co.uk

CMP Information, 245 Blackfriars Road, London SE1 9UY, UK
Subscriptions:

Tel: +44 (0)1635 588890 Fax: +44 (0)1635 868594
email: shpcirculation@cmpinformation.com

Editorial:

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email: shpeditor@cmpinformation.com

Health and Safety at Work magazine

Published by LexisNexis Butterworths.

Journals and Magazines, 2 Addiscombe Road, Croydon, Surrey
CR9 5AF, UK

Subscriptions:

Tel: +44 (0)20 86869141 Fax: +44 (0)20 86861910

Editorial:

Tel: +44 (0)20 82121938 email: hsw@lexisnexis.co.uk

Occupational Safety & Health

Official journal of the Royal Society for the Prevention of Accidents (RoSPA)

Press and Periodicals, Edgbaston Park, 353 Bristol Road,
Birmingham B5 7ST, UK

Sales:

Tel: +44 (0)870 777 2227 email: sales@rospa.com

Editorial:

Tel: +44 (0)121 248 2000

Fax: +44 (0)121 248 2001

Hazards

Official journal of the Trades Union Congress (TUC). Also
online at www.hazards.org

PO Box 199, Sheffield S1 4YL, UK

Subscription:

Tel: +44 (0)114 235 2074

email: sub@hazards.org

Editorial:

Tel: +44 (0)114 201 4265

email: editor@hazards.org

Environmental Health Journal

Official Journal of the Chartered Institute of Environmental
Health

Chadwick Court, 15 Hatfields, London SE1 8DJ, UK

Subscription:

Tel: +44 (0)20 7827 5882

email: j.godden@chgl.com

Editorial:

Tel: +44 (0)20 7928 6006

email: ehj@chgl.com

Safety Management

Official journal of the British Safety Council

70 Chancellors Road, London W6 9RS, UK

Subscription:

Tel: +44 (0)20 8741 1231

Fax: +44 (0)20 8741 4555

email: subscriptions@britsafe.org

Editorial:

Tel: +44 (0)20 8741 1231

Fax: +44 (0)20 8741 4555

email: publications@britsafe.org

HSC and HSE publications and information services

HSE Books

HSE Books is the publishing arm of the Health and Safety Executive and the mail order and warehousing service for the

distribution of HSC/HSE publications. It distributes both priced and free publications and also operates a number of subscription services.

HSE Books issue a catalogue at regular intervals.

Contact HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA Tel +44 (0)1787 881165

The catalogue can also be found online at the HSE Bookfinder website at www.hsebooks.com. This website provides the on-line system for selecting and ordering publications from HSE Books. The website provides a wide range of information including:

- free leaflets
- general occupational safety and health
- health and safety topics
- HSE research
- People in the workplace.

The website is updated on a weekly basis to take into account the addition of new publications and titles.

HSE website

The HSE has a website on the Internet. This contains information about the objectives of the HSE, how to contact the HSE, how to complain, recent press releases and research and current initiatives. Information about risks at work and information about different workplaces is also available.

A feedback facility is available to enable organisations and individuals to post enquiries and suggestions to the HSE electronically.

The URL for accessing the HSE home page is www.hse.gov.uk.

hsedirect

Developed by the HSE in partnership with LexisNexis, hsedirect is an on-line information service providing instant access to the

latest legislation, ACOPs and HSE guidance, EU Directives, British Standard summaries, case summaries and HSE forms. The site also contains daily news, HSE press releases, a health and safety events diary and useful contact details.

The home page can be contacted through www.hsedirect.com. with further enquiries through enquiries@hsedirect.com (tel. 0845 300 3142).

HSELINE

HSELINE is a computer database of bibliographic references to published documents on health and safety at work. It contains over 230 000 references and over 9000 additions are made each year.

For further information on how to access HSELINE contact:

Dialtech, 148 Darland Avenue, Gillingham, Kent ME7 3AS
Tel: 01634 574592
email: einsuk@aol.com

or

Dialog, Thompson Corporation, Palace House, 3 Cathedral Street, London SE1 9DE Tel: 0207 940 6900 Fax: 0207 940 6800

HSE Infoline

Infoline is the HSE's public enquiry contact centre. It's a 'one-stop shop', providing rapid access to the HSE's wealth of health and safety information, and access to expert advice and guidance.

HSE Infoline can be contacted by telephone (08701 545500), Minicom (02920 808537) Fax (02920 859260), email (hseinformationsservices@natbrit.com) or by post (HSE Infoline, Caerphilly Business Park, Caerphilly CF83 3GG).

HSE electronic journals

HSE electronic journals include:

- *Biological Agents Bulletin*
- *Local Authority Unit Newsletter*
- *Radiation Protection News*
- *Safety Statistics Bulletin*
- *Site Safe News*
- *Toxic Substances Bulletin*

HSC newsletter

This bi-monthly publication provides a single source of information for all those affected by health and safety issues, whether managers, shop floor workers, safety officers or safety representatives (available through HSE Books).

HSE news bulletin

A weekly compilation of all press releases issued by the HSE's press office on a variety of subjects relating to health and safety in the workplace (available through HSE Books).

HSE information series

This series provides guidance on a very broad range of topics, including:

A guide to the Construction (Health, Safety and Welfare) Regulations 1996

An introduction to health and safety

A short guide to managing asbestos in premises

A short guide to the Personal Protective Equipment at Work Regulations 1992

Back pain: managing back pain in the workplace

Basic advice on first aid at work

Buying new machinery

Checkouts and musculoskeletal disorders

Computer control: a question of safety

Consulting employees on health and safety
Contained use of genetically modified organisms
COSHH: a brief guide to the Regulations
COSHH and section 6 of the Health and Safety at Work Act
Driving at work: managing work-related road safety
Electrical safety and you
Electric storage batteries: safe charging and use
Emergency action for burns
Employers' Liability (Compulsory Insurance) Act 1969: A guide
for employers and their representatives
Ergonomics at work
Fire and explosion: how safe is your workplace?
First aid at work
First aid at work: your questions answered
Five steps to information, instruction and training
Five steps to risk assessment
Five steps to successful health and safety management
Gas appliances: get them checked: keep them safe
Getting to grips with manual handling
Grin and wear it
Hand-arm vibration
Health and safety benchmarking
Health and safety regulation: a short guide
Health risks from hand-arm vibration: advice for employers
Health surveillance in noisy industries: advice for employers
Homeworking
If the task fits: ergonomics at work
Keep the noise down
Legionnaires' disease
Lighten the load: guidance for employers on musculoskeletal
disorders
Listen up!
Maintaining portable electrical equipment in offices and other
low risk environments
Managing asbestos in workplace buildings
Managing crowds safely
Managing health and safety: five steps to success
Managing vehicle safety in the workplace

Manual handling: a short guide for employers
Manual handling assessment charts
Noise at work: advice for employers
Noise in construction: further guidance on the Noise at Work Regulations 1989
Officewise
Passive smoking at work
Preventing dermatitis at work
Preventing slips, trips and falls at work
Protecting your health at work
Read the label: how to find if chemicals are dangerous
Reduce risks – cut costs: the real costs of accidents and ill health at work
Respiratory sensitisers
RIDDOR explained: Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995
Safety in electrical testing
Safe working with flammable substances
Signpost to the Health and Safety (Safety Signs and Signals) Regulations 1996
Silica dust and you
Starting your business: guidance on preparing a health and safety policy document for small firms
Tackling work-related stress: a guide for employees
The complete idiot's guide to CHIP
The Noise at Work Regulations: a brief guide to the requirements for controlling noise at work
The right start: work experience for young people
Training woodworking machinists
Understanding ergonomics at work
Upper limb disorders; assessing the risks
Using work equipment safely
Violence at work: a guide for employers
Welfare at work
What your doctor needs to know: your work and your health
Working alone in safety: controlling the risks of solitary work
Working with VDUs
Workplace health, safety and welfare

Appendix D: Professional organisations

Professional Organisations

Institution of Occupational Safety and Health (IOSH)

The Grange, Highfield Drive, Wigston, Leicester LE18 1NN, UK
Tel: +44 (0)116 257 3100 Fax: +44 (0)116 257 3101
email: enquiries@iosh.co.uk Website: www.iosh.co.uk

British Occupational Hygiene Society (BOHS)

5/6 Melbourne Business Court, Millennium Way, Pride Park, Derby, DE24 8LZ, UK
Tel: +44 (0)1332 298101 Fax: +44 (0)1332 298099
email: admin@bohs.org Website: www.bohs.org

Chartered Institute of Environmental Health (CIEH)

Chadwick Court, 15 Hatfields, London SE1 8DJ, UK
Tel: +44 (0)20 7928 6006 Fax: +44 (0)20 7827 5862
email: info@cieh.org Website: www.cieh.org

Ergonomics Society

Elms Court, Elms Grove, Loughborough LE11 1RG, UK
Tel: +44 (0)1509 234904 Fax: +44 (0)1509 235666
email: ergsoc@ergonomics.org Website: www.ergonomics.org.uk

Institute of Occupational and Environmental Medicine (IOEM)

University of Birmingham, Edgbaston, Birmingham B15 2TT, UK
Tel: +44 (0)121 414 6030 Fax: +44 (0)121 414 6217

email: J.B.Grainger@bham.ac.uk Website: www.pcpoh.
bham.ac.uk/ioem

Institute of Occupational Medicine (IOM)

Research Park North, Riccarton, Edinburgh EH14 4AP,
Scotland, UK

Tel: +44 (0)870 850 5131

Fax: +44 (0)870 850 5132

email: info@iomhq.org.uk

Website: www.iom-world.
org

Institution of Fire Engineers (IFE)

London Road, Moreton-in-Marsh, Gloucestershire
GL56 0RH, UK

Tel: +44 (0)1608 812 580

Fax: +44 (0)1608 812 581

email: info@ife.org.uk

Website: www.ife.org.uk

Examination Board

National Examination Board in Occupational Safety and Health (NEBOSH)

Dominus Way, Meridian Business Park, Leicester
LE19 1QW, UK

Tel: +44 (0)116 263 4700

Fax: +44 (0)116 282 4000

email: info@nebosh.org.uk

Website: www.nebosh.
org. uk

Associations and Organisations

Asbestos Removal Contractors Association (ARCA)

ARCA House, 237 Branston Road, Burton upon Trent,
Staffordshire DE14 3BT, UK

Tel: +44(0)1283 531126

Fax: +44 (0)1283 568228

email: Form on website

Website: www.arcaweb.
org.uk

British Red Cross

UK Office, 44 Moorfields, London EC2Y 9AL, UK

Tel: +44 (0)870 170 7000

Fax: +44 (0)20 7562 2000

email: information@redcross.org.uk

Website: www.redcross.org.uk

org.uk

org.uk

British Safety Council (BSC)

70 Chancellors Road, London W6 9RS, UK

Tel: +44 (0)20 8741 1231

Fax: +44 (0)20 8741 4555

email: Form on website

Website: www.britishsafetycouncil.co.uk

tycouncil.co.uk

Council of Registered Gas Installers (CORGI)

1 Elmwood, Chineham Park, Crockford Lane, Basingstoke, Hants RG24 8WG, UK

Tel: +44 (0)870 401 2200

Fax: +44 (0)870 401 2600

email: enquiries@corgi-gas.com

Website: www.corgi-gas.com

com

Fire Protection Association (FPA)

London Road, Moreton-in-Marsh, Gloucestershire

GL56 0RH, UK

Tel: +44 (0)1608 812 500

Fax: +44 (0)1608 812 501

email: fpa@thefpa.co.uk

Website: www.thefpa.co.uk

Royal Institute of Public Health (RIPH)

28 Portland Place, London W1B 1DE, UK

Tel: +44 (0)20 7580 2731

Fax: +44 (0)20 7580 6157

email: examinations@riph.org.uk

Website: www.riph.org.uk

Royal Society for the Prevention of Accidents (RoSPA)

RoSPA House, Edgbaston Park, 353 Bristol Road, Edgbaston, Birmingham B5 7ST, UK

Tel: +44 (0)121 248 2000

Fax: +44 (0)121 248 2001

email: help@rospa.com

Website: www.rospa.org.uk

Royal Society for the Promotion of Health (RSPH)

38A St. George's Drive, London SW1V 4BH

Tel: +44 (0)20 7630 0121

Fax: +44 (0)20 7976 6847

email: rsph@rsph.org

Website: www.rsph.org

Safety and Reliability Society (SARS)

Clayton House, 59 Piccadilly, Manchester M1 2AQ, UK

Tel: +44 (0)161 228 7824

Fax: +44 (0)161 236 6977

email: info@sars.org.uk

Website: www.sars.org.uk

St John Ambulance

UK Office, 27 St John's Lane, London EC1M 4BU, UK

Tel: +44 (0)8700 10 49 50

Fax: +44 (0)8700 10 40 65

email: Form on website

Website: www.sja.org.uk

Appendix E: Industries – principal legal requirements

All industries

Employers' Liability (Compulsory Insurance) Act 1969
Health and Safety at Work etc Act 1974

Building Regulations 2000
Children (Protection at Work) Regulations 1998
Control of Asbestos at Work Regulations 2002
Control of Noise at Work Regulations 2005
Control of Substances Hazardous to Health Regulations 2002
Control of Vibration at Work Regulations 2005
Dangerous Substances and Explosive Atmospheres Regulations 2002
Health and Safety (Consultation with Employees) Regulations 1996
Health and Safety (Display Screen Equipment) Regulations 1992
Health and Safety (First Aid) Regulations 1981
Health and Safety (Miscellaneous Amendments) Regulations 2002
Health and Safety (Safety Signs and Signals) Regulations 1996
Lifting Operations and Lifting Equipment Regulations 1998
Lifts Regulations 1997
Management of Health and Safety at Work Regulations 1999
Manual Handling Operations Regulations 1992
Personal Protective Equipment at Work Regulations
Pressure Equipment Regulations 1999
Pressure Systems Safety Regulations 2000
Provision and Use of Work Equipment Regulations 1998
Regulatory Reform (Fire Safety) Order 2005
Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995
Safety Representatives and Safety Committees Regulations 1977

Work at Height Regulations 2005
Working Time Regulations 1997
Workplace (Health, Safety and Welfare) Regulations 1992

Agriculture, forestry and arboriculture

Food and Environmental Protection Act 1985
Control of Pesticides Regulations 1986

Asbestos

Asbestos (Licensing) Regulations 1983 (as amended)
Control of Asbestos at Work Regulations 2002

Biological products

Biological Products Regulations 2001

Chemical

Explosives Acts 1975 & 1923
Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles Regulations 1996
Chemicals (Hazard Information and Packaging for Supply) Regulations 2002
Dangerous Substances and Explosive Atmospheres Regulations 2002
Dangerous Substances (Notification and Marking of Sites) Regulations 1990
Classification and Labelling of Explosives Regulations 1983
Control of Explosives Regulations 1991

Market and Supervision of Transfers of Explosives Regulations 1993

Notification of New Substances Regulations 1993

Packaging of Explosives for Carriage Regulations 1991

Construction

Construction (Design and Management) Regulations 1994

Construction (Head Protection) Regulations 1989

Construction (Health, Safety and Welfare) Regulations 1996

Work in Compressed Air Regulations 1996

Diving

Diving at Work Regulations 1997

Work in Compressed Air Regulations 1996

Docks

Dangerous Substances in Harbour Areas Regulations 1987

Docks Regulations 1988

Loading and Unloading of Fishing Vessels Regulations 1988

Food and catering

Food Safety Act 1990

Food Hygiene (England) Regulations 2005

Foundries

Control of Vibration at Work Regulations 2005

Gas

Gas Safety (Installation and Use) Regulations 1998

Gas Safety (Management) Regulations 1996

Pipelines Safety Regulations 1996

Genetics

Genetically Modified Organisms (Contained Use) Regulations 2000

Leisure

Activity Centres (Young Persons Safety) Act 1995

Adventure Activities (Licensing) Regulations 1996

Major hazard installations

Control of Major Accident Hazards Regulations 1999

Radiation (Emergency Preparedness and Public Information) Regulations 2001

Mines

Mines and Quarries Act 1954

Coal and other Safety-lamp Mines (Explosives) Regulations 1993

Coal Mines (Owners' Operating Rules) Regulations 1993

Escape and Rescue from Mines Regulations 1995

Management and Administration of Safety and Health at Mines Regulations 1993

Mines (Control of Ground Movement) Regulations 1999

Mines (Safety of Exit) Regulations 1988
Mines (Shafts and Winding) Regulations 1993

Nuclear

Nuclear Installations Act 1965
Control of Major Accident Hazards Regulations
Public Information for Radiation Emergencies Regulations 1992

Offshore

Offshore Installations and Pipeline Works (First Aid) Regulations 1989
Offshore Installations and Pipeline Works (Management and Administration) Regulations 1995
Offshore Installations and Wells (Design and Construction) Regulations 1996
Offshore Installations (Prevention of Fire and Explosion and Emergency Response) Regulations 1995
Offshore Installations (Safety Case) Regulations 1992
Offshore Installations (Safety Representatives and Safety Committees) Regulations 1989

Oil

Borehole Sites and Operations Regulations 1995
Control of Major Accident Hazards Regulations 1999
Pipelines Safety Regulations 1996

Plastics

Petroleum-Spirit (Plastic Containers) Regulations 1982

Pottery

Control of Lead at Work Regulations 2002

Quarries

Quarries Regulations 1999

Radiation

Ionising Radiations Regulations 1999

Public Information for Radiation Emergencies Regulations 1992

Radiation (Emergency Preparedness and Public Information) Regulations 2001

Railways

Level Crossings Regulations 1997

Railway Safety (Miscellaneous Provisions) Regulations 1997

Railway Safety Regulations 1999

Railways (Safety Case) Regulations 2000, 2001 & 2003

Railways (Safety Critical Work) Regulations 1994

Service Sector

Care Homes Regulations 2001

Transportation

Carriage of Dangerous Goods by Rail Regulations 1996

Carriage of Dangerous Goods by Road Regulations 1996

Carriage of Dangerous Goods (Classification, Packaging and Labelling) and Use of Transportable Pressure Receptacles Regulations 1996

Transportable Pressure Vessels Regulations 2001

Transport of Dangerous Goods (Safety Advisers) Regulations 1999

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002

Dangerous Substances and Explosive Atmospheres Regulations 2002

Market and Supervision of Transfers of Explosives Regulations 1993

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