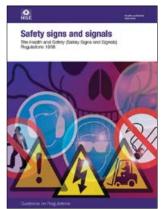
Safety signs and signals

The Health and Safety (Safety Signs and Signals) Regulations 1996

Guidance on Regulations



L64 (Third edition) Published 2015

This guidance is for employers and dutyholders, and others who have responsibility for the control of work sites and premises, or operating equipment requiring verbal and/or non-verbal communications.

This third edition provides practical advice on how to comply with the Health and Safety (Safety Signs and Signals) Regulations 1996.

It also updates references to legislation and standards and has been amended to accommodate the changes relating to the labelling and packaging of chemicals made by the Classification, Labelling and Packaging of Chemicals (Amendments to Secondary Legislation) Regulations 2015.



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Intruduction

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About this book

1. This guidance provides practical advice on how to comply with the Health and Safety (Safety Signs and Signals) Regulations 1996 (the Regulations).

Who should read this book?

2. This book is for employers and dutyholders and others who have responsibility for the control of work sites and premises, or operating equipment requiring verbal and/or non-verbal communications. Throughout this book we have referred to the employer and others who have duties as 'you'. Where the guidance is addressed to some other dutyholder, for example a competent person, the text makes it clear who it is intended for.

Changes in this edition

- 3. The majority of changes in this edition have been to update references to legislation and Standards enacted or updated recently, eg the Regulatory Reform (Fire Safety) Order 2005 and *Graphical symbols: Safety colours and safety signs*. Registered safety signs BS EN ISO 7010:12+A5:2015 (referred to as BS EN ISO 7010 in this book). Details of relevant Standards and legislation appear in Further reading.
- 4. The document has also been amended to accommodate the changes resulting from the Classification, Labelling and Packaging of Chemicals (Amendments to Secondary Legislation) Regulations 2015 (the CLP (Amendment) Regulations) relating to labelling and packaging of chemicals.
- 5. The signs appearing in Part 2 of this book are examples of appropriate signs. Some examples have been included from BS EN ISO 7010 to demonstrate the types of variations permitted. There will be others available as the Regulations permit variations and additional signs as long as they retain the intrinsic features described. Please note the change in the warning signs the deletion of the 'Harmful or irritant material' warning sign as a result of the CLP (Amendment) Regulations.

About the Regulations

6. The Regulations implement European Council Directive 92/58/EEC on minimum requirements for the provision of safety signs at work. They require employers to provide safety signs where other methods, properly considered, cannot deal satisfactorily with certain risks and where the use of a sign can further reduce that risk.

- 7 They cover traditional safety signs such as 'No entry' signs, and other means of communicating health and safety information such as hand signals, acoustic signals (eg warning sirens on machines) and verbal communications such as pre-recorded evacuation messages.
- 8 The Directive standardises safety signs throughout member states of the European Union (EU) so that wherever a particular safety sign is seen it provides the same message. The intention is that workers moving from site to site, such as service engineers, will not be faced with different signs at different workplaces.
- 9 The CLP (Amendment) Regulations, which came into force on 1 June 2015, made some amendments to these Regulations. These are reflected in this guidance and the Regulations in Part 4 have been revised to show the amended version.
- 10 Regulation (EC) No 1272/2008 (the CLP Regulation) on classification, labelling and packaging of substances and mixtures, adopts the United Nations' Globally Harmonised System on the classification and labelling of chemicals (GHS) across all EU countries, including the UK. As GHS is a voluntary agreement rather than a law, it has to be adopted through a suitable national or regional legal mechanism to ensure it becomes legally binding. That is what the CLP Regulation does. As GHS was heavily influenced by the old EU system, the CLP Regulation is very similar in many ways. The duties on suppliers are broadly the same: classification, labelling and packaging.
- 11 The CLP Regulation replaced the previous European legislation on classification, labelling and packaging of dangerous substances and preparations. As a result, a number of European Directives were amended to reflect the change to the law. Domestic legislation then also had to be amended, to implement the changes at European level. The CLP (Amendment) Regulations made those changes to domestic legislation, including to the Regulations.

About this guidance

- 12 This publication consists of:
- (a) guidance (Parts 1–3):
 - (i) Part 1 'About the Regulations' covers safety signs in general;
 - (ii) Part 2 'Using safety signs' contains advice on their selection, and explains the general requirements for the proper use of safety signs, including technical requirements (eg shape, colour etc) for different types of sign. The signs are also reproduced in full colour in Part 2;
 - (iii) Part 3 'Fire safety signs' covers similar details for fire safety signs;
- (b) the Regulations (Part 4).

Consulting employees

13 If you are an employer you have a legal duty to consult with your employees on matters relating to health and safety in the workplace. For further information see Consulting employees on health and safety: A brief guide to the law.¹

PART 1 About the Regulations

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What do the Regulations require?

- 14 The Regulations require employers to ensure that safety signs are provided (or are in place) and maintained in circumstances where there is a significant risk to health and safety that has not been removed or controlled by other methods. This is only appropriate where use of a sign can further reduce the risk. The other methods may include engineering controls or safe systems of work and may be required under other relevant legislation. Safety signs are not a substitute for those other methods of control.
- 15 In determining when and where to use safety signs, employers must take into account the results of the risk assessment made under the Management of Health and Safety at Work Regulations 1999 (the Management Regulations).² This assessment should identify hazards, the risks associated with those hazards, and the control measures to be taken. When those control measures have been put in place there may be a significant 'residual' risk such that employees must be warned of any further measures necessary. Safety signs should be used if they will help to further reduce this residual risk. If the risk is not significant there may be no need to provide a sign.
- These Regulations make it clear that safety signs are not a substitute for other means of controlling risks to employees; safety signs are to warn of any remaining significant risk or to instruct employees of the measures they should take in relation to these risks. For example, in some workplaces there may be a risk of foot injury despite taking measures to control the risk and it may be appropriate to remind staff using the sign indicating that wearing foot protection is mandatory.
- 17 Although these Regulations do not require safety signs to be used where there is no significant risk to health and safety, certain fire safety signs may have to be displayed under separate legal provisions. If you have any doubts check this with your enforcing authority for fire safety.

What about information, instruction and training?

18 It is important that employers ensure that their employees are aware of and understand the meaning of safety signs and signals either seen or heard during their work, including providing training where necessary. Although most safety signs are self-explanatory, employees (particularly new, young or inexperienced ones) may be unfamiliar with the meaning of some of the less commonly used signs. It is therefore important that the meaning of any sign is clearly explained, and that employees are aware of the consequences of not following the warning or instruction given by the sign. Text supplementing the sign may have a useful role here.

What is a safety sign?

- 19 The Regulations cover a variety of methods of communicating health and safety information. The terms used in the Regulations mean the following:
- (a) **safety and/or health sign** a sign providing information or instruction about safety or health at work by means of a signboard, a colour, an illuminated sign or acoustic signal, a verbal communication or hand signal;
- (b) signboard a sign which provides information or instructions by a combination of shape, colour and a symbol or pictogram which is rendered visible by lighting of sufficient intensity. In practice, many signboards may be accompanied by supplementary text, eg 'Fire exit', alongside the symbol of a moving person. Signboards can be of the following types:



 prohibition sign – a sign prohibiting behaviour likely to increase or cause danger (eg 'no access for unauthorised persons');



(ii) **warning sign** – a sign giving warning of a hazard or danger (eg 'danger: electricity');



(iii) mandatory sign – a sign prescribing specific behaviour (eg 'eye protection must be worn');



 (iv) emergency escape or first-aid sign – a sign giving information on emergency exits, first aid, or rescue facilities (eg 'emergency exit/escape route';

- (c) **safety colour** a colour to which a specific meaning is assigned (eg yellow means 'be careful' or 'take precautions');
- (d) **symbol or pictogram** these appear in Schedule 1, although some variation in detail is acceptable provided the meaning is the same (examples of variations are included in BS EN ISO 7010). They are for use on a signboard or illuminated sign (eg the trefoil ionising radiation warning sign);
- (e) **illuminated sign** a sign made of transparent or translucent materials which is illuminated from the inside or the rear to give the appearance of a luminous surface (eg emergency exit signs);
- (f) **acoustic signal** a sound signal which is transmitted without the use of a human or artificial voice (eg a fire alarm);
- (g) **verbal communication** a predetermined spoken message communicated by a human or artificial voice;

- (h) hand signal a movement or position of the arms or hands giving a recognised signal and guiding people who are carrying out manoeuvres which are a hazard or danger to people;
- (i) **fire safety sign** see Part 3.

Where and to whom do these Regulations apply?

Employers/employees

- 20 The Regulations place duties on employers in respect of risks to their employees with the principal duty being to ensure that safety signs are in place.
- 21 In some industries, for example offshore, many employees are employed by contractors who are not in control of the places in which their employees work. In practice, safety signs will normally be provided by the employer or person in charge of the workplace, usually the owner or operator of the installation. The Management Regulations are relevant in these cases, particularly regulation 12. This requires the 'host' employer (or self-employed person) to give information on risks and the associated precautions arising from that employer's activities to the employer of persons at work there. In these cases, the employer or contractor will usually be able to meet their obligations by relying on the arrangements made by the host (ie the owner or operator).
- 22 Contractors who are also employers will want to check that their employees are familiar with the meaning of safety signs likely to be encountered during the course of their work. They may also wish to make checks where there is a 'host' employer that appropriate signs are in place.

Application offshore

23 The Regulations apply to work activities carried out in British territorial waters and in designated areas of the UK Continental Shelf. The activities are those listed in the Health and Safety at Work etc Act 1974 (Application outside Great Britain) Order 2013. This includes offshore installations, wells, pipeline works and activities connected with installations and wells such as construction, loading and unloading of supply vessels, and diving operations offshore. Note that for offshore installations the emergency warning arrangements, including the tones of acoustic signals and colours of illuminated signs, are covered in the Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995.³

Fire safety

24 The way these Regulations apply with respect to fire safety signs (eg fire exit signs and fire alarms) is described in Part 3. Further provisions for specific fire safety signs are required by other provisions such as Building Regulations and the Regulatory Reform (Fire Safety) Order 2005.

Circumstances where these Regulations do not apply

Non-employees

These Regulations do not place any duty on employers to provide signs to warn other people (eg visitors, neighbours) of risks to their health and safety. They do not apply to the self-employed. However, in both these cases, employers and certain self-employed people will still have duties under section 3 of the Health and Safety at Work etc Act 1974 (the HSW Act), and regulation 12 of the Management Regulations regarding the health and safety of non-employees, and may find the safety signs described here helpful in meeting their general duties to ensure, so far as is reasonably practicable, the health and safety of others not in their employ but who may be affected by their work activity.

Supply of articles and dangerous substances

- 26 The Regulations have no requirements regarding the supply of either articles or dangerous substances.
- 27 Most machinery will be subject to the Supply of Machinery (Safety) Regulations 2008 which also contain marking requirements (supporting European standards provide ways of meeting these requirements).

Internal works traffic

28 The signs specified in Schedule 1 of the Regulations are not intended for use in directing traffic on public roads, waterways etc. However, the Regulations require the use of road traffic signs, as prescribed in the Road Traffic Regulation Act 1984 (examples of which are shown in the Department for Transport publications *Know your traffic signs*⁴ and *Highway code*⁵) to regulate road traffic within workplaces where necessary.

Application to merchant shipping

29 Seagoing ships are subject to separate merchant shipping legislation. Regulation 3(1)(d) of the Regulations disapplies them from ships in respect of the normal shipboard activities of a ship's crew under the direction of the master. It does not, however, disapply them in respect of other work activities. For example, where a shore-based contractor goes on board to carry out work on the ship, that person's activities will be subject to the Regulations within territorial waters. In these cases, the contractor should make checks to ensure, for example, that appropriate signs are in place. This partial exemption applies to seagoing ships only. The Regulations apply in full to ships operating on inland waters.

PART 2 Using safety signs

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Using safety signs effectively

30 This part aims to help employers comply with their duties to select, make effective use of, and maintain safety signs. The technical requirements of the Regulations relating to the various types of safety signs are explained.

General rules on use

- 31 The signs shown in Schedule 1 of the Regulations are to be used when it is necessary to convey the relevant message or information specified in the Regulations.
- 32 If the hearing or sight of any employee is impaired, for example by wearing personal protective equipment, additional measures should be taken to ensure that employees can see or hear the warning sign or signal, for example by increasing the brilliance or volume.
- 33 In some cases, more than one type of safety sign may be necessary, for example an illuminated warning sign indicating a specific risk combined with an acoustic alarm meaning 'general danger' to alert people, or hand signals combined with verbal instructions.

Maintenance

- 34 All safety signs must be properly maintained so that they are capable of performing the function for which they are intended. This can range from the routine cleaning of signboards to regular checks of illuminated signs and testing of acoustic signals to see that they work properly.
- 35 All safety signs should maintain their intrinsic features under power failure either from emergency lighting or phosphorescent material unless the hazard is itself eliminated by the power failure.

Safety colours

36 In these Regulations signs incorporating certain colours have specific meanings. Table 1 identifies the colours for safety signs generally (for fire safety signs, see Part 3).

Table 1 Safety sign colours (excluding fire safety signs)

Colour	Meaning or purpose	Instruction and information
Red	Prohibition sign Danger alarm	Dangerous behaviour; stop; shutdown; emergency cut-out devices; evacuate
Yellow Amber	Warning sign	Be careful; take precautions; examine
Blue	Mandatory sign	Specific behaviour or action, eg wear protective equipment
Green	Emergency escape First-aid sign	Doors; exits; escape routes; equipment and facilities
	No danger	Return to normal

Using signboards

- 37 Where signboards are used in a workplace, ensure that they are sufficiently large and clear to be easily seen and understood. For example, when describing available equipment the safety sign should show clearly where that equipment is. All safety signs require adequate illumination and size should be appropriate for intended viewing distance; information can be found in BS 5499-4:2013 and BS 5499-10:2014. Signboards should also be durable, securely fastened and properly maintained (eg washed or resurfaced) to ensure they remain visible.
- 38 Permanent signboards are necessary, except in cases where the workplace or hazard is temporary. Even in these cases safety signs must still be consistent with the requirements of the Regulations. For example, use of a portable warning sign by cleaners may be necessary if a hazard such as a slippery floor exists for a short period.
- 39 **Take care to avoid using too many signboards in close proximity.**Signboards are only effective if they can be seen and understood. If too many signs are placed together there is a danger of confusion or of important information being overlooked.
- 40 If circumstances change, making a particular signboard unnecessary (ie if the hazard no longer exists), it is important to ensure its removal so that misleading information is not displayed.

Pictograms

- 41 Small differences from the pictograms or symbols shown in Schedule 1 of the Regulations are acceptable, providing they do not affect or confuse the message that the sign conveys and as long as the resultant sign still meets the relevant identified 'intrinsic features'. For example, the pictograms within BS EN ISO 7010 can be used to comply with the Regulations.
- 42 If Schedule 1 of the Regulations does not contain a suitable signboard then it is acceptable to design your own, providing it conforms to the general principles described in the Regulations. However, where the warning sign is to be used on a room storing material or containers used at work for chemical substances or mixtures (classified as hazardous according to the criteria for any physical or health hazard class) subject to the CLP Regulation, you must use one of the signs in

paragraph 3.2 of Part II, Schedule 1 or, if there is no equivalent warning sign, the relevant hazard pictogram, as laid down in Annex V to the CLP Regulation, must be used.

- 43 If a pictogram needs to be designed it should be as simple as possible, containing only necessary detail. Guidance can be found in BS ISO 3864-1:2011 and BS ISO 3864-4:2011, where design principles that can be followed are described. The principles will ensure the pictogram is understood for the application and will meet the geometric shape and colour required by the Regulations.
- 44 Pictograms used in signs should be as simple as possible and contain only necessary detail. BS EN ISO 7010 contains examples of varied signs which may be useful. As an example, the following emergency escape route pictograms are from BS EN ISO 7010.









- 45 It may sometimes be useful to supplement a safety sign with text to aid understanding. This may be important, for example when introducing a new or unfamiliar sign, or using a general danger or warning sign. In these cases, the meaning is reinforced if the background colour of the supplementary sign is the same as the colour used on the safety sign it is supplementing.
- 46 Any supplementary sign or text used with a particular safety sign must be chosen to reflect the same safety sign category. So, for example, if a mandatory sign is used, ensure that accompanying text (if any) describes the mandatory nature (using the word 'must' rather than 'should' or 'may') of the action to be taken, such as 'Face protection **must** be worn'.

Signboards appearing in Schedule 1

47 The intrinsic features of the four types of signboards referred to in Table 1, and also fire safety signs, are described below. Examples of each type of sign are also included. You may also use variations of these signs as long as they retain the 'intrinsic features' described in each section or use the signs in BS EN ISO 7010, which has been developed and provides more variations, particularly of the fire exit/escape signs.

Prohibitory signs

Intrinsic features:

- (a) round shape;
- (b) black pictogram on white background, red edging and diagonal line (the red part to take up at least 35% of the area of the sign).



No access for unauthorised persons



Smoking and naked flames forbidden



No smoking



No access for pedestrians



Not drinkable



Do not extinguish with water



No access for industrial vehicles



Do not touch

Warning signs – General

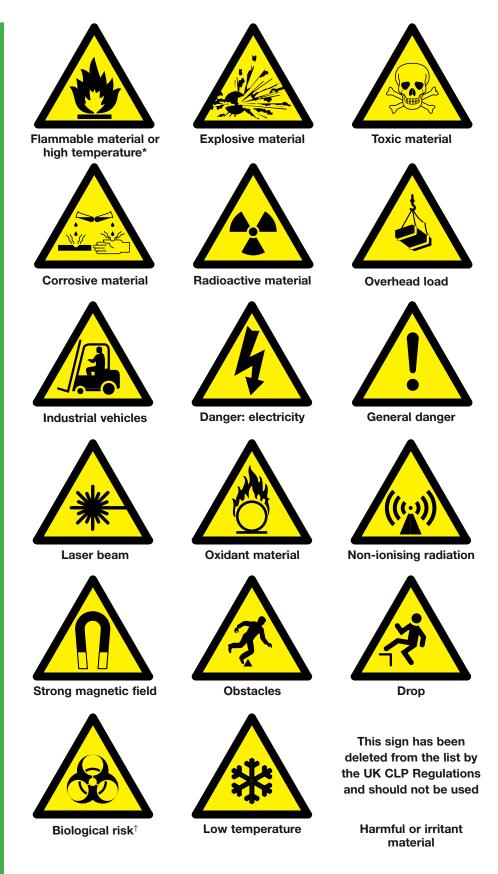
48 The 'Harmful or irritant material' warning sign (black cross on a yellow triangle warning sign) which previously appeared in the Regulations was removed by regulation 3(4)(c) of the CLP (Amendment) Regulations. Where employers would previously have used this they should now use the most relevant warning sign from the others available. Where the warning sign does not relate to the CLP Regulation new designs of pictograms may be developed as long as they are clear and meet these intrinsic features.

Intrinsic features:

- (a) triangular shape;
- (b) black pictogram on a yellow background with black edging (the yellow part to take up at least 50% of the area of the sign).

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^{*} In the absence of a specific sign for high temperature.

[†] Pictogram laid down in Council Directive 90/679/EEC of 26 November 1990 on the protection of workers from the risks related to exposure to biological agents at work (Seventh individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) OJ No L374, 31.12.1990, p1.

Mandatory signs

Intrinsic features:

- (a) round shape;
- (b) white pictogram on a blue background (the blue part to take up at least 50% of the area of the sign).

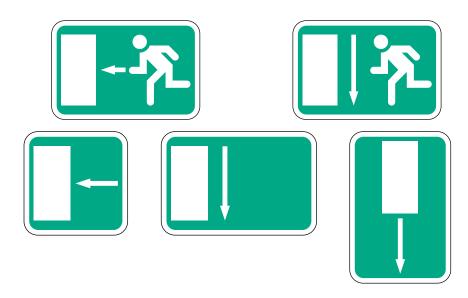


Emergency escape or first-aid signs

Intrinsic features:

- (a) rectangular or square shape;
- (b) white pictogram on a green background (the green part to take up at least 50% of the area of the sign).

Emergency exit/escape route signs



Examples from BS EN ISO 7010









Supplementary 'This way' signs for emergency exits/escape routes

49 For emergency exit signs for safe exit routes (*Safety signs. Code of practice for escape route signing* BS 5499-4:2013 applies) care should be taken that 'This way' arrows for emergency equipment location (red background direction arrows) are not in contradiction with escape direction.











First-aid signs







Stretcher



Eyewash



Safety shower



Emergency telephone for first aid or escape

Firefighting signs

Intrinsic features:

- rectangular or square shape; (a)
- white pictogram on a red background (the red part to take up at least 50% of the area of the sign).



Fire hose



Fire extinguisher



Ladder



Emergency fire telephone



Fire extinguisher



Fire alarm



Supplementary 'This way' signs for firefighting equipment

50 Care should be taken that the use of arrows to indicate the direction to emergency equipment cannot be confused with direction of escape and should not be in contradiction. If there is a risk that confusion may arise which could result in those evacuating a building being misdirected, you should consider whether these signs should be used.





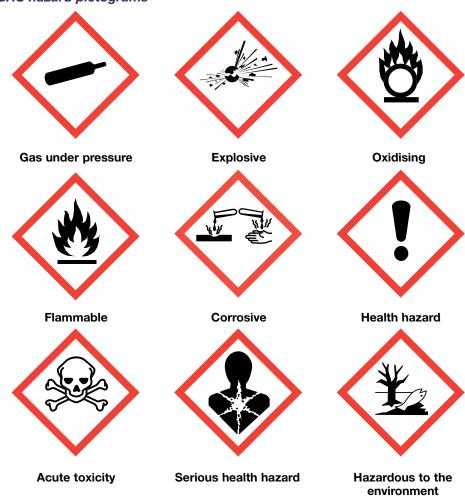




Warning signs - Chemical labelling and packaging

- 51 These labels do not appear in Schedule 1 of the Regulations but in Annex V to the CLP Regulation.
- 52 There are no intrinsic features laid down for the labels under the CLP Regulation. You must use the most appropriate sign of those available and cannot create variations.
- 53 These labels do not form part of the Regulations but have an impact on signage used with hazardous substances and mixtures which have resulted in changes to those Regulations.

GHS hazard pictograms



Using signs on containers and pipes

- 54 Containers, tanks and vessels used in the workplace for hazardous chemical substances or mixtures, and the visible pipes in the workplace containing or transporting hazardous substances and mixtures, should generally be labelled with the relevant pictograms in accordance with the CLP Regulation.
- 55 There are, however, a number of exceptions:
- (a) it may not be necessary to affix signs to pipes where the pipe is short and connected to a container which is clearly signed, such as a welding set;
- (b) containers need not be labelled where the contents may change regularly (for example chemical process vessels and pipework which are not dedicated to one substance). In these cases, employers must have other arrangements for ensuring that employees know the hazardous properties of the contents of the container; for example, employers could provide suitable process instruction sheets or training for employees.
- 56 The CLP (Amendment) Regulations amend the provisions relating to containers and pipes. Where these containers or pipes are not excepted and are used for, contain or are involved in the transporting of hazardous chemical substances and mixtures, they must be labelled in accordance with the CLP Regulation, using the relevant hazard pictogram from Annex V to the CLP Regulation.
- 57 However, the CLP (Amendment) Regulations also permit use of the hazard warning symbols specified in other systems so labels can be:
- (a) replaced by warning signs from Part II of Schedule 1 of the Regulations, provided they contain the same pictograms or symbols. If there is no equivalent in Part II, the relevant hazard pictogram from Annex V of the CLP Regulation must be used:
- (b) supplemented by additional information, eg about the risk or the hazardous chemical;
- (c) in the case of containers transported at the place of work, supplemented or replaced by EU applicable signs.

Confusion is unlikely to arise since similar pictograms are used in the different types of signs. What may differ are the shape and the colour of the signs.

- 58 Where signs or labels are used they may be supplemented by additional information, such as the name of the hazardous substance or mixture and details of the hazard.
- 59 The signs or labels must be mounted on the sides that are visible and to be durable. Labels can be in self-adhesive or painted form.
- 60 When deciding where signs or labels should be placed on pipework containing hazardous substances it is important to avoid causing confusion, so do not use too many signs.
- 61 Signs or labels will be most useful at points where employees are likely to be exposed to the contents of the pipework, for example sampling or filling points, drain valves, and flanged joints which are likely to need periodic breaking. Where there are long pipe runs on which points of potential exposure are infrequent, labels or signs may also be displayed at intermediate points. Note that these Regulations do not cover the colour coding of pipes. However, BS 1710:2014 Specification for identification of pipelines and services may be of further interest since it provides

guidance on the use of different colours and safety signs to identify the contents of pipework and the associated risk.

Using signs to mark areas, rooms and enclosures

- 62 It is important to mark those areas, rooms or enclosures used for the storage of significant quantities of hazardous substances or mixtures by a suitable warning sign, unless the warning labels on individual containers are clearly visible from outside or nearby. Note that marking requirements for explosives stores are dealt with in the Manufacture and Storage of Explosives Regulations 2005.6
- 63 Where stores are being used for hazardous chemicals or mixtures they should be indicated by the relevant warning sign taken from paragraph 3.2 of Part II of Schedule 1 of the Regulations (the yellow triangle black pictogram warning signs). If there is no equivalent warning sign in these provisions then the relevant hazard pictogram from Annex V to the CLP Regulation must be used. Stores containing a number of different substances may be indicated by the 'general danger' warning sign.
- The signs or labels referred to above must be positioned, as appropriate, near storage areas or on doors leading into storage rooms.

Dangerous Substances (Notification and Marking of Sites) Regulations 1990 (the NMS Regulations)

65 The provisions in the Regulations for marking stores containing dangerous substances overlap with the requirements of the NMS Regulations. Site entrances to most stores containing 25 tonnes or more of dangerous substances must be marked under the NMS Regulations. The purpose of the marking is to provide information to the fire and emergency services attending an incident at the site. However, the primary function of the Regulations is to provide information to employees. The signs to be used under both sets of Regulations are very similar and signs complying with the NMS Regulations, on sites where they apply, will in general also satisfy the marking requirements of the Regulations. The NMS Regulations do not apply offshore.

Using signs to mark obstacles, dangerous locations and traffic routes

66 The Work at Height Regulations 2005 are concerned with preventing injuries caused by falls from heights or from being struck by falling objects. Regulation 13(5) and (6) of the Workplace (Health, Safety and Welfare) Regulations 1992 (the Workplace Regulations) includes requirements to prevent injuries caused by falling into, for example, a tank or a pit. In many cases, fall protection measures such as secure barriers are required to prevent falls. However, where the risk is low or where it is impracticable to safeguard by other means, marking the dangerous location in accordance with Part V of Schedule 1 will be necessary – for example, highlighting the edge of a raised platform or area where objects may fall using markings consisting of yellow and black (or red and white) stripes, as shown overleaf:



Signs for marking obstacles and dangerous locations

- 67 The stripes are at an angle of 45° and more or less of equal size.
- 68 Regulation 17 of the Workplace Regulations includes requirements for indicating traffic routes within workplaces where necessary for reasons of health and safety. Part V of Schedule 1 of the Regulations requires the markings to take the form of continuous lines, preferably yellow or white, taking into account the colour of the ground.
- 69 Traffic routes in built-up areas outdoors do not have to be marked if suitable pavements or barriers are already provided.
- 70 The Regulations do not require outdoor traffic routes to be marked in areas that are not built-up. This is because risks to the health and safety of employees are likely to be low. However, there may be cases requiring either use of clearly defined traffic routes or safe systems of work (possibly including the use of banksmen to direct traffic) to help meet general duties under the HSW Act, eg when vehicles are operating (particularly during reversing) close to employees working on foot.
- 71 In some cases it may not be possible to mark traffic routes clearly by means of painted lines, for example in underground coal mines. In these cases other measures may be necessary to ensure that pedestrians are not put at risk by vehicles.

Using acoustic signals and illuminated signs

General principles

- 72 Regulation 24 of the Provision and Use of Work Equipment Regulations 19987 includes requirements for work equipment to incorporate any warning or warning devices necessary for reasons of health and safety. This could include the use of acoustic signals and illuminated signs instead of conventional signboards. The signals or signs used must meet the minimum requirements described in the relevant part of Schedule 1 of these Regulations (Parts VI or VII). The signals also must be suitable for the working environment. For example, in an explosive atmosphere ensure they do not pose a risk of ignition.
- 73 Guidance on signals forming part of fire warning systems (eg fire alarms) is covered in Part 3.
- 74 When acoustic signals or illuminated signs have to be activated (either automatically or in line with other safety arrangements) it is important they remain so for as long as the danger exists or until receipt of any planned acknowledgement.
- 75 Acoustic signals and illuminated signs must be checked at regular intervals to ensure that they are functioning correctly. The more hostile the environment, the more frequently they should be checked.

Illuminated signs

- 76 The sign has to be bright enough to be seen, without causing glare.
- 77 Care should be taken to ensure that a number of illuminated signs are not used together if this could give rise to confusion. Confusion could also arise if an illuminated sign is placed close to any other similar light source.
- 78 The luminous area of the sign may be of a single safety colour or contain a pictogram on a specified background consistent with the requirements of Schedule 1 of the Regulations.
- 79 If an illuminated sign can be either 'on' continuously or operate intermittently (ie flash on and off), use the flashing sign to indicate a higher level of danger or a more urgent need for intervention or action.
- 80 The duration and frequency of flashes for an intermittent illuminated sign should be such as to ensure the message is properly understood, and avoid any confusion with other illuminated signs, including continuous illuminated signs.
- 81 If a flashing sign is used instead of, or together with, an acoustic signal, it is important to synchronise the two. This means that the duration and frequency of flashes should be in line with both the pulse length and interval for an acoustic signal. The choice of equipment and the way it operates, of course, must take account of other risks. For example, with fast flicker rates epilepsy could be triggered in some people or, in other cases, some types of electronic pulse could be a danger in respect of stores containing certain explosives.
- 82 Where flashing signs are used to warn of imminent danger, it is particularly important to ensure that measures are in place to either detect failure of the sign quickly or to prevent its failure (eg by fitting duplicate bulbs etc).

Acoustic signals

- 83 So that they can be heard, acoustic signals should be set at a level which is considerably higher in terms of frequency than the ambient noise, for example 10 dB above the level of ambient noise at that frequency. However, make sure the level is neither excessive nor painful. It is also important for signals to be easily recognisable, particularly in terms of pulse length and the interval between pulses or groups of pulses.
- 84 Ensure that acoustic signals are not used more than one at a time.
- 85 If a device can emit an acoustic signal at variable frequencies (this includes an intermittent signal operating on a discrete frequency) or constant frequencies, use the variable frequency set at 10 dB above the ambient level at the appropriate frequency to indicate a higher level of danger or a more urgent need for intervention or action.
- 86 Acoustic signals for fire alarms are covered in Part 3.

Using hand signals to direct hazardous operations

- 87 Hand signals can be used to direct hazardous operations such as crane or vehicle manoeuvres. Ensure that the signals are precise, simple and easy to make and to understand.
- 88 Check also that the signaller is competent to make hand signals and is trained in their correct use.

Specific rules governing use

- 89 The signaller must be able to see all the manoeuvres being made by the people receiving the signals without being endangered by them.
- 90 During manoeuvres, make sure that the duties of the signaller are confined to directing manoeuvres and to other specific measures aimed at the safety of nearby workers (eg keeping people back a safe distance).
- 91 In some cases, the precautions described above may have to be supplemented, for example with further signallers to help co-ordinate the action. In such cases, make sure that the person receiving the signals takes them from one signaller only unless specific arrangements have been made.
- 92 When an operator is unable to continue the manoeuvre safely, the operation must be discontinued until further instructions are received from the signaller.
- 93 Where weather conditions may obscure viewing or result in poor light, the use of high-visibility clothing may be required to ensure the safety of the signaller under the Personal Protective Equipment at Work Regulations 1992.8 Such clothing provides an additional benefit as it may also help the operator see the signaller. The use of other items such as signalling bats and reflective arm bands may also help the operator see and understand the signals.

Codes of hand signals

- 94 Where hand signals are used, ensure they are consistent with the code of signals shown in Schedule 1 of the Regulations or meet either BS 6736:1986 Code of practice for hand signalling for use in agricultural operations or BS 7121-1:2006 Code of practice for safe use of cranes which are referred to in Schedule 2 of the Regulations.
- 95 There may be situations where these codes of hand signals are insufficient to meet communication needs. In these cases, additional signals can be used based on existing signalling practice.
- 96 Irrespective of the code of hand signals chosen, it is important that they are used consistently throughout a firm or workplace. If employees are unfamiliar with the code in use then appropriate training is necessary. Particular care is needed with new employees who have previously used different codes of hand signals. They may not fully understand the signals in use and may therefore require retraining.

Using verbal signals to direct hazardous operations

97 Verbal signals can also be used to direct hazardous operations. Such signals can be spoken messages given either by human or artificial voice, and either given directly or recorded. Spoken messages must be clear, concise and understood by the listener.

98 The verbal signals described here also represent a suitable means to help comply with relevant parts of section 2 of the HSW Act and regulations 10 and 13 of the Management Regulations (ie those parts which require employees to be provided with adequate information, instruction and training to ensure their health and safety when directing hazardous operations).

Specific rules governing use

99 The people involved should have a good knowledge of the language used so that they are able to pronounce and understand the spoken message correctly and react accordingly.

100 If verbal communication is used instead of hand signals, use the code words in Table 2 and ensure that if the two are used together they are co-ordinated.

Table 2 Code words for verbal communication

Code word	Meaning	
Start	Start an operation	
Stop	Interrupt or end an operation	
End	Stop an operation	
Raise	Raise a load	
Lower	Lower a load	
Forwards	Move forwards	
Backwards	Move backwards	
Right	Move to signaller's right	
Left	Move to signaller's left	
Danger	Emergency stop	
Quickly	Speed up a movement	

101 Whatever system of code words is being used it is important that it can be properly understood. Where English is not the first language of most staff the codes do not necessarily have to be in English. However, there must be safeguards to ensure others affected by the operation can be easily made aware of any danger.

PART 3 Fire safety signs

GUIDANCE

What is a fire safety sign?

102 A fire safety sign is defined in regulation 2(1) as a sign (including an illuminated sign or an acoustic signal) which:

- (a) provides information on escape routes and emergency exits in case of fire;
- (b) provides information on the identification or location of firefighting equipment;
- (c) gives warning in case of fire.

When are fire safety signs required?

103 Duties on employers to provide these signs will mostly arise, for England and Wales, from the Regulatory Reform (Fire Safety) Order 2005, and, for Scotland, the Fire (Scotland) Act 2005 and other fire legislation. The effect here of the Regulations will, in most cases, be to describe the types of sign you may use. Often the enforcing authority for fire safety will determine where to locate the signs. In other cases, you should provide signs depending on the outcome of your assessment of risks to health and safety. If changes to existing signs are proposed, check first with your enforcing authority.

Safety colours

104 Information on colours for safety signs, but for fire safety signs in particular, is given in Table 3.

Table 3 Colours for fire safety signs

Colour	Meaning or purpose	Instruction and information
Red	Firefighting equipment	Identification and location
Green	Emergency escape	Doors, exits, escape routes

What about signs pre-dating these Regulations?

105 If there are fire safety signs still in use which contain symbols or pictograms which conform to the requirements of BS 5499 they will meet the requirements of these Regulations, provided they continue to fulfil their purpose effectively. However, BS EN ISO 7010 provides examples for graphical symbols and BS 5499-4:2013 and BS 5499-10:2014 give information for application, size and siting.

106 A fire safety sign which bears only text (ie typically 'Fire Exit') will not be acceptable, although text can be used in combination with pictograms, perhaps in order to comply with the requirements of a fire certificate.

What do the signs look like?

107 The signs for emergency escape routes and firefighting equipment are contained in the Regulations in Schedule 1, Part II, paragraphs 3.4 and 3.5. As for safety signs generally, the symbols used may be slightly different from those shown provided the meaning is clear. These may be supplemented by directional arrows which are used with the pictogram to form the sign. Note, however, that a directional arrow is not acceptable on its own (refer to BS 5499-10:2014 for examples of effective practice).

Maintenance

108 All signs should be properly maintained. It is also important that signs are fixed securely and are sufficiently large to be clearly seen.

Using signs in buildings and structures

- 109 People usually leave premises by the same way that they enter or by routes which are familiar to them. Alternative exits (ie all emergency exits and any exits not in normal use) should be clearly indicated so that people know there are additional ways to leave. In addition, the provision of well-signposted exits in full view will give a feeling of security in an emergency.
- 110 Make sure the fire exit sign is displayed immediately above the exit opening or, if this is not possible, choose a position where the sign can be clearly seen and is least likely to be obstructed or obscured by smoke.
- 111 Where an exit cannot be seen or where a person escaping may be in doubt about the location of an exit (eg in warehouses where goods for transit and other obstructions may prevent a clear view of the exit doors), fire exit signs, including a directional arrow, are appropriate at suitable points along the escape route.
- 112 In buildings with multiple occupants a common approach to the provision of fire safety signs is sensible so that people are not confused about the exit routes from the building. In such cases, it is normally the owner of the building who has responsibility for displaying signs in common areas (eg stairways) and if there is any doubt check this with your enforcing authority for fire safety. Individual occupiers are normally responsible for the signs necessary within their part of the building.
- 113 Your enforcing authority for fire safety may, in addition to the fire safety signs referred to in these Regulations, require provision of certain supplementary signs to aid the effective and efficient use of the escape routes provided. For instance, where there is a danger that a door which is a fire exit may become obstructed (because its importance is not appreciated) such as a final exit door opening into a car park or storage yard, or a seldom used intercommunicating or bypass door between rooms, a conspicuous 'Fire Escape Keep Clear' sign should be shown on the appropriate faces of the door. Check with your enforcing authority if you have any doubts.
- 114 If the level of natural light is poor, then adequate illumination (which includes emergency lighting) will be required. Signs incorporating photoluminescent materials may also have a role in poor light conditions.

Marking and identifying firefighting equipment

115 Table 3 highlights the requirement for use of the colour red to indicate the location of firefighting equipment. The location will normally be indicated through use of a signboard, or by colouring the background behind the equipment red. Where the equipment itself is predominantly red there may be no need to colour the background red as well. The signboard must be sufficiently large to allow the location of the firefighting equipment to be easily determined. Further information on the intrinsic features of signboards and what they look like is given above. These Regulations do not cover the colour coding of equipment such as fire extinguishers, although advice on this can be found in BS 7863:2009 Recommendations for colour coding to indicate the extinguishing media contained in portable fire extinguishers.

116 If for any reason firefighting equipment is placed in a position hidden from direct view, indicate its location using appropriate directional arrows, together with the relevant firefighting equipment sign. Care should be taken to avoid confusion by ensuring these do not contradict the escape route direction.

Enforcing authority for fire safety

117 Further advice on the application of these Regulations to fire safety signs can be obtained:

- (a) from your enforcing authority for fire safety; that is, from fire officers;
- (b) from environmental health officers or building control officers of local authorities;
- (c) in cases where the Regulatory Reform (Fire Safety) Order 2005 applies,* from HSE inspectors.

Fire alarms

118 The purpose of a fire alarm is to ensure that people in the workplace are alerted to any outbreak of fire well before it becomes life-threatening. The warning system sets in motion a planned routine for evacuating the premises.

119 Fire alarms are included in the term 'acoustic signal' – 'a coded sound signal which is released and transmitted by a device designed for that purpose, without the use of a human or artificial voice'. In practice, it is important that the acoustic signal for a fire alarm:

- (a) has a sound level considerably higher than the level of ambient noise so that the warning signal can be heard throughout the workplace;
- (b) is easily recognisable and distinct from other acoustic signals and ambient noise:
- (c) is continuous for evacuation.

120 The method of giving warning of fire will vary from workplace to workplace. However, it must be suitable for the premises. In some cases, such as small workplaces, the fire alarm may consist of manually-operated sounders (eg rotary gongs or handbells). In larger workplaces it may take the form of an electrical

^{*} ie premises for which a licence or permit is required under the Nuclear Installations Act 1965; a ship in the course of construction, reconstruction or conversion or repair by persons who include persons other than the Master and crew of the ship and, where certain conditions apply, construction sites.

fire-warning system (eg conforming to BS 5839-1:2013 Fire detection and fire alarm systems for buildings).

- 121 The Regulations permit incorporation of a public address system with the warning signal, which may also be accompanied by an illuminated sign (eg a flashing light).
- 122 Experience has shown that good information is a particularly effective aid to safe and speedy evacuation. Therefore, in workplaces where members of the public are present, it can be a significant help if the warning signal for evacuation is supplemented by use of the public address system to give clear and concise instructions. To be effective, messages should normally be prepared in advance and, in some cases, in appropriate languages. The fire warning system should activate this message. Ideally, this will cancel any amplified music, soundtrack or other announcements. Similarly, if a public address system is used to transmit the alarm signal, or can be incorporated with the signal, it must take priority and override other facilities of the system. Further information is given in BS 5839-1:2013, BS 5839-8:2013 and in BS EN 60849:1998, IEC 60849:1998 Sound systems for emergency purposes.
- 123 Ensure that a sounder, or loudspeaker of a public address system, is not located in such a position that communication with the Fire and Rescue Service is hindered, eg too near a reception area from which the emergency call may be made.
- 124 Many fire warning systems are single stage, ie when the alarm sounds simultaneous evacuation takes place. However, some large workplaces may have a two-stage warning system. In these systems, a continuous evacuation signal is given in certain parts of the workplace, ie those near the origin of the fire, while an intermittent or alert signal meaning 'stand-by' is received elsewhere. These systems allow a progressive or phased evacuation of the workplace so that congestion along emergency escape routes is minimised.
- 125 If a staged fire warning system is being considered it is advisable to check with your enforcing authority for fire safety before installation.
- 126 Your enforcing authority for fire safety may specify certain maintenance requirements for your fire warning system but, in general, all fire alarms must be regularly maintained. This is necessary to ensure they work properly and can be heard throughout the workplace. For manually-operated sounders this is a relatively simple task where the necessary general skills could well be 'in-house'. With respect to electrical fire warning systems, however, it is important that they are serviced by someone who is competent to carry out the work; that is, someone with the appropriate skills, qualifications and/or experience.
- 127 Your installer may be able to advise about necessary maintenance; alternatively, contact your enforcing authority for fire safety.

Information, instruction and training

128 Ensure that your employees fully understand the meaning of fire safety signs in the workplace and how to give warning in case of fire. Supervisors, and others who have been given particular responsibility in an emergency, must be clear about the action to take if the fire alarm is sounded.

PART 4 The Health and Safety (Safety Signs and Signals) Regulations 1996

GUIDANCE

129 The following version of the Safety Signs and Signals Regulations includes the amendments made to these Regulations by the Classification, Labelling and Packaging of Chemicals (Amendments to Secondary Legislation) Regulations 2015.

Regulation 1 Citation and commencement

REGULATIONS 1

These Regulations may be cited as the Health and Safety (Safety Signs and Signals) Regulations 1996 and shall come into force on 1st April 1996.

Regulation 2 Interpretation

REGULATIONS 2

(1) In these Regulations, unless the context otherwise requires -

"the 1974 Act" means the Health and Safety at Work etc. Act 1974;

"the CLP Regulation" means Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No. 1907/2006, of which Articles 6(5), 11(3), 12, 14, 18(3)(b), 23, 25 to 29, 35(2) second and third subparagraphs and Annexes I to VII are to be read as amended from time to time.

"acoustic signal" means a coded sound signal which is released and transmitted by a device designed for that purpose, without the use of a human or artificial voice;

"dangerous goods" has the meaning in regulation 2(1) of the Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007 which shall apply as if those goods were being carried by road;*

"emergency escape or first-aid sign" means a sign giving information on escape routes or emergency exits or first-aid or rescue facilities;

"fire safety sign" means a sign (including an illuminated sign or an acoustic signal) which –

- (i) provides information on escape routes and emergency exits in case of fire:
- (ii) provides information on the identification or location of fire-fighting equipment; or
- (iii) gives warning in case of fire;

^{*} This definition of 'dangerous goods' has been substituted by SI 2004/568 and SI 2007/1573.

REGULATIONS 2

"hand signal" means a movement or position of the arms or hands or a combination thereof, in coded form, for guiding persons who are carrying out manoeuvres which create a risk to the health or safety of persons at work;

"illuminated sign" means a sign produced by a device made of transparent or translucent materials which are illuminated from the inside or the rear in such a way as to give the appearance of a luminous surface;

"mandatory sign" means a sign prescribing behaviour;

"prohibition sign" means a sign prohibiting behaviour likely to cause a risk to health or safety;

"safety colour" means a colour to which a meaning is assigned;

"safety sign" means a sign referring to a specific object, activity or situation and providing information or instructions about health or safety at work by means of a signboard, a safety colour, an illuminated sign, an acoustic signal, a verbal communication or a hand signal;

"signboard" means a sign which provides information or instructions by a combination of geometric shape, colour and a symbol or pictogram and which is rendered visible by lighting of sufficient intensity;

"symbol or pictogram" means a figure which describes a situation or prescribes behaviour and which is used on a signboard or illuminated surface;

"verbal communication" means a predetermined spoken message communicated by a human or artificial voice;

"warning sign" means a sign giving a warning of a risk to health or safety.

- (2) Any reference in these Regulations to a sign providing instructions includes a mandatory sign, a prohibition sign and a warning sign.
 - (3) In these Regulations, unless the context otherwise requires -
 - (a) a reference to a numbered regulation or Schedule is a reference to the regulation or Schedule in these Regulations so numbered; and
 - (b) a reference to a numbered paragraph is a reference to the paragraph so numbered in the regulation or Schedule in which that reference occurs.

REGULATIONS 3

Regulation 3 Application

- (1) These Regulations shall not apply -
- to signs used in connection with the supply of any hazardous substance, mixture, product or equipment except to the extent that any enactment (whether in an Act or instrument) which requires such signs makes reference to these Regulations;
- (b) to dangerous goods during the course of their transport by road, rail, inland waterway, sea or air;
- (c) subject to paragraph (6) of regulation 4, to signs used for regulating road, rail, inland waterway, sea or air traffic; or
- (d) to or in relation to the master or crew of a sea-going ship or to the employer of such persons in respect of normal ship-board activities of a ship's crew under the direction of the master.

REGULATIONS 3

- (2) These Regulations shall apply -
- (a) in Great Britain; and
- (b) to and in relation to the premises and activities outside Great Britain to which sections 1 to 59 and 80 to 82 of the 1974 Act apply by virtue of the Health and Safety at Work etc. Act (Application outside Great Britain) Order 1995* as they apply within Great Britain.
- (3) These Regulations shall not extend to Northern Ireland.

Regulation 4 Provision and maintenance of safety signs

REGULATIONS 4

- (1) Paragraph (4) shall apply if the risk assessment made under paragraph (1) of regulation 3 of the Management of Health and Safety at Work Regulations 1999 indicates that the employer concerned, having adopted all appropriate techniques for collective protection, and measures, methods or procedures used in the organisation of work, cannot avoid or adequately reduce risks to employees except by the provision of appropriate safety signs to warn or instruct, or both, of the nature of those risks and the measures to be taken to protect against them.
- (2) For the purposes of paragraph (1), risks shall only be treated as having been adequately reduced if, having adopted the appropriate techniques, measures, methods or procedures referred to in that paragraph, there is no longer a significant risk of harm having regard to the magnitude and nature of the risks arising from the work concerned.
- (3) Without prejudice to paragraph (1), sub-paragraphs (a) and (b) of paragraph (4) shall also apply in relation to fire safety signs where they are required to comply with the provisions of any enactment (whether in an Act or instrument).
- (4) Where this paragraph applies, the employer shall (without prejudice to the requirements as to the signs contained in regulation 11(2) of the Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995)
 - (a) in accordance with the requirements set out in Parts I to VII of Schedule 1, provide and maintain any appropriate safety sign (other than a hand signal or verbal communication) described in those Parts, or ensure such sign is in place; and
 - (b) subject to paragraph (5), in accordance with the requirements of Parts I, VIII and IX of Schedule 1, ensure, so far as is reasonably practicable, that any appropriate hand signal or verbal communication described in those Parts is used; and
 - (c) provide and maintain any safety sign provided in pursuance of paragraph(6) or ensure such sign is in place.
- (5) For the purposes of sub-paragraph (b) of paragraph (4), the appropriate hand signal described in the documents specified in Schedule 2 shall be an alternative to the corresponding hand signal described in paragraph 3 of Part IX of Schedule 1.
- (6) Where it is appropriate to provide safety signs in accordance with paragraph (1) because at a place of work there is a risk to the health or safety of

^{*} SI 1995/263 replaced by the Health and Safety at Work etc Act (Application outside Great Britain) Order 2013 SI 2013/240.

REGULATIONS 4

any employee in connection with the presence or movement of traffic (including pedestrians in relation to such traffic) and there is an appropriate sign in that connection prescribed under the Road Traffic Regulation Act 1984, that sign shall be used whether or not that Act applies to that place of work.

Regulation 5 Information, instruction and training

REGULATIONS 5

- (1) Every employer shall ensure that comprehensible and relevant information on the measures to be taken in connection with safety signs is provided to each of his employees.
- (2) Every employer shall ensure that each of his employees receives suitable and sufficient instruction and training in the meaning of safety signs and the measures to be taken in connection with safety signs.

Regulation 6 Transitional provisions

REGULATIONS 6

These Regulations shall not have effect in relation to any fire safety signs lawfully in use immediately before the coming into force of these Regulations until 24 December 1998.

Regulation 7 Enforcement

REGULATIONS 7

Notwithstanding regulation 3 of the Health and Safety (Enforcing Authority)
Regulations 1989, the enforcing authority in relation to fire safety signs provided in pursuance of regulation 4(4) as applied by regulation 4(3) (signs provided to comply with the provisions of any enactment) shall be –

- (a) the Health and Safety Executive, in the case of -
 - (i) premises where the Fire Certificates (Special Premises) Regulations 1976 apply; or*
 - (ii) premises and activities to which these Regulations apply by virtue of paragraph (2)(b) of regulation 3;
- (b) in any other case, the authority or class of authorities responsible for enforcing the relevant provision of the enactment which applies to the case.

Regulation 8 Revocations and amendments

Regulation 8

- (1) The instruments referred to in column 1 of Part I of Schedule 3 shall be revoked to the extent specified in column 3 of that Part.
- (2) The instruments referred to in Part II of Schedule 3 shall be modified to the extent specified in that Part.

^{*} Regulation 7(a)(i) has been revoked, in relation to Scotland, by SSI 2006/457. The Fire Certificates (Special Premises) Regulations 1976 were revoked by the Regulatory Reform (Fire Safety) Order 2005.

Schedule 1 Regulations 4(4) and (5) relate to this Schedule

SCHEDULE 1

Part I Minimum requirements concerning safety signs and signals at work

1 Preliminary remarks

- 1.1 Where safety signs are required by these Regulations, they must conform to the specific requirements in Parts II to IX of this Schedule.
- 1.2 This Part introduces those requirements, describes the different uses of safety signs, and gives general rules on the interchanging and combining of signs.
- 1.3 Safety signs must be used only to convey the message or information specified in this Schedule.

2 Types of signs

- 2.1 Permanent signs
- 2.1.1 Permanent signboards must be used for signs relating to prohibitions, warnings and mandatory requirements and the location and identification of emergency escape routes and first-aid facilities.

Signboards and/or a safety colour must be used to mark permanently the location and identification of fire-fighting equipment.

- 2.1.2 Signboards on containers and pipes must be placed as laid down in Part III.
- 2.1.3 Places where there is a risk of colliding with obstacles or of falling must be permanently marked with a safety colour and/or with signboards.
- 2.1.4 Traffic routes must be permanently marked with a safety colour.
- 2.2 Occasional signs
- 2.2.1 Illuminated signs, acoustic signals and/or verbal communication must be used where the occasion requires, taking into account the possibilities for interchanging and combining signs set out in paragraph 3, to signal danger, to call persons to take a specific course of action and for the emergency evacuation of persons.
- 2.2.2 Hand signals and/or verbal communication must be used where the occasion requires, to guide persons carrying out hazardous or dangerous manoeuvres.

3 Interchanging and combining signs

- 3.1 Any one of the following may be used if equally effective:
 - a safety colour or a signboard to mark places where there is an obstacle or a drop,
 - illuminated signs, acoustic signals or verbal communication,
 - hand signals or verbal communication.
- 3.2 Some types of signs may be used together:
 - illuminated signs and acoustic signals,
 - illuminated signs and verbal communication,
 - hand signals and verbal communication.
- 4 The instructions in the table below apply to all signs incorporating a safety colour.

Colour	Meaning or purpose	Instructions and information
Red	Prohibition sign	Dangerous behaviour
	Danger alarm	Stop, shutdown, emergency cut out devices, Evacuate
	Fire-fighting equipment	out out devices, Evacuate
		Identification and location
Yellow or Amber	Warning sign	Be careful, take precautions
		Examine
Blue	Mandatory sign	Specific behaviour or action
		Wear personal protective equipment
Green	Emergency escape, first aid sign	Doors, exits routes, equipment, facilities
	No danger	Return to normal

- 5 The effectiveness of a sign must not be adversely affected by:
- 5.1 the presence of another emission source of the same type which interferes with visibility or audibility; therefore, in particular,
- 5.1.1 the placing of too many signs too close together should be avoided;
- 5.1.2 two illuminated signs which are likely to be confused are not to be used at the same time;
- 5.1.3 an illuminated sign is not to be used in the proximity of another similar illuminated source;
- 5.1.4 two acoustic signals are not to be used at the same time;
- 5.1.5 an acoustic signal is not to be used if there is too much ambient noise;
- 5.2 poor design, insufficient number, incorrect positioning, poor state of repair or incorrect functioning of the signs or signalling devices.

- 6 Depending on requirements, signs and signalling devices must be cleaned, maintained, checked, repaired, and if necessary replaced on a regular basis to ensure that they retain their intrinsic and/or functional qualities.
- 7 The number and positioning of signs or signalling devices to be installed will depend on the extent of the hazards or dangers or on the zone to be covered.
- 8 Signs requiring some form of power must be provided with a guaranteed emergency supply in the event of a power cut, unless the hazard has thereby been eliminated.
- 9 The triggering of an illuminated sign and/or acoustic signal indicates when the required action should start; the sign or signal must be activated for as long as the action requires. Illuminated signs and acoustic signals must be reactivated immediately after use.
- 10 Illuminated signs and acoustic signals must be checked to ensure that they function correctly and that they are effective before they are put into service and subsequently at sufficiently frequent intervals.
- 11 If the hearing or the sight of the workers concerned is impaired, including impairment by the wearing of personal protective equipment, measures must be taken to supplement or replace the signs concerned.
- 12 Areas, rooms or enclosures used for the storage of significant quantities of hazardous substances or mixtures must be indicated by a suitable warning sign taken from paragraph 3.2 of Part II, or marked as provided in paragraph 1 of Part III, unless the labelling of the individual packages of containers is adequate for this purpose. If there is no equivalent warning sign in paragraph 3.2 of Part II to warn about hazardous chemical substances or mixtures, the relevant hazard pictogram as laid down in Annex V to the CLP Regulation, must be used.

Part II Minimum general requirements concerning signboards

1 Intrinsic features

- 1.1 The shape and colours of signboards are set out in paragraph 3, in accordance with their specific object (signboards indicating a prohibition, a warning, a mandatory action, an escape route, an emergency or fire-fighting equipment).
- 1.2 Pictograms must be as simple as possible and should contain only essential details.
- 1.3 The pictograms used may be slightly different from or more detailed than those shown in paragraph 3, provided that they convey the same meaning and that no difference or adaptation obscures the meaning.
- 1.4 Signboards are to be made of shock and weather-resistant material suitable for the surrounding environment.
- 1.5 The dimensions and colorimetric and photometric features of signboards must be such that they can be easily seen and understood.

2 Conditions of use

2.1 Signboards are in principle to be installed at a suitable height and in a position appropriate to the line of sight, taking account of any obstacles, either at the access point to an area in the case of a general hazard, or in the immediate vicinity

of a specific hazard or object and in a well-lit and easily accessible and visible location.

Without prejudice to the provisions of Directive 89/654/EEC, phosphorescent colours, reflective materials or artificial lighting should be used where the level of natural light is poor.

- 2.2 The signboard must be removed when the situation to which it refers ceases to exist.
- 2.3 The "General danger" warning sign must not be used to warn about hazardous substances or mixtures, except for cases where the warning sign is used to indicate stores of a number of hazardous substances or mixtures in accordance with paragraph 5 of Part 3 of Schedule 1 to these Regulations.

3 Signboards to be used[†]

- 3.1 Prohibitory signs
- 3.2 Warning signs*
- 3.3 Mandatory signs
- 3.4 Emergency escape or first-aid signs
- 3.5 Fire-fighting signs

Part III Minimum requirements governing signs on containers and pipes

1 Containers used at work for chemical substances or mixtures classified as hazardous according to the criteria for any physical or health hazard class in accordance with the CLP Regulation, and containers used for the storage of such hazardous substances or mixtures, together with the visible pipes containing or transporting such hazardous substances or mixtures, must be labelled with the relevant hazard pictograms in accordance with that Regulation.

Paragraph 1 does not apply to containers used at work for brief periods nor to containers whose contents change frequently, provided that alternative adequate measures are taken, in particular for information and/or training, which guarantee the same level of protection.

The labels referred to in paragraph 1 may be:

- replaced by warning signs as provided for in Part II, using the same pictograms or symbols. If there is no equivalent warning sign in Schedule 1, Part II the relevant hazard pictogram as laid down in Annex V to the CLP Regulation must be used,
- supplemented by additional information, such as the name and/or formula
 of the hazardous substance or mixture and details of the hazard.
- for the transporting of containers at the place of work, supplemented or replaced by signs applicable throughout the Union for the transport of hazardous substances or mixtures.

[†] Editorial note: Descriptions and colour reproductions of the sign appearing in this Schedule can be found at www.legislation.gov.uk/uksi/1996/341/schedule/1/made.

^{*} The 'Harmful or irritant material' warning sign was deleted by regulation 3(4)(c) of the UK CLP Regulations.

- 2 Signs must be mounted as follows:
 - on the visible side(s),
 - in unpliable, self-adhesive or painted form.
- 3 Where appropriate, the signs referred to in paragraph 1 of this Part must have the intrinsic features defined in paragraph 1.4 of Part II and must fulfil the conditions of use for signboards laid down in paragraph 2 of Part II.
- 4 Without prejudice to paragraphs 1, 2 and 3, the labels used on pipes must be positioned visibly in the vicinity of the most dangerous points, such as valves and joints, and at reasonable intervals.
- 5 Areas, rooms or enclosures used for the storage of significant quantities of hazardous substances or mixtures must be indicated by a suitable warning sign taken from paragraph 3.2 of Part II, or marked as provided in paragraph 1 of Part III, unless the labelling of the individual packages or containers is adequate for this purpose, taking into account Part II, paragraph 1.5 with regard to dimensions.

Stores of a number of hazardous substances or mixtures may be indicated by the warning sign for general danger.

The signs or labels referred to above must be positioned, as appropriate, near the storage area or on the door leading into the storage room.

Part IV Minimum requirements for the identification and location of fire-fighting equipment

1 Preliminary remark

This Part applies to equipment used exclusively for fire-fighting purposes.

- 2 Fire-fighting equipment must be identified by using a specific colour for the equipment and placing a location signboard, and/or by using a specific colour for the places where such equipment is kept, or their access points.
- 3 The colour for identifying this equipment is red.

The red area must be sufficiently large to allow the equipment to be identified easily.

4 The signboards provided for in paragraph 3.5 of Part II must be used to mark the locations of this equipment.

Part V Minimum requirements governing signs used for obstacles and dangerous locations, and for marking traffic routes

1 Signs for obstacles and dangerous locations

1.1 Places where there is a risk of colliding with obstacles, of falling or of objects falling should be marked with alternating yellow and black, or red and white stripes in built-up zones in the undertaking to which workers have access during their work.

- 1.2 The dimensions of the markings must be commensurate with the scale of the obstacle or dangerous location in question.
- 1.3 The yellow and black or red and white stripes must be at an angle of approximately 45° and of more or less equal size.*

2 Marking of traffic routes

- 2.1 Where the use and equipment of rooms so requires for the protection of workers, traffic routes for vehicles must be clearly identified by continuous stripes in a clearly visible colour, preferably white or yellow, taking into account the colour of the ground.
- 2.2 The stripes must be located so as to indicate the necessary safe distance between the vehicles and any object which may be near by, and between pedestrians and vehicles.
- 2.3 Permanent traffic routes in built-up areas outdoors should, as far as is practicable, be similarly marked, unless they are provided with suitable barriers or pavements.

Part VI Minimum requirements for illuminated signs

1 Intrinsic features

- 1.1 The light emitted by a sign must produce a luminous contrast which is appropriate to its environment, in accordance with the intended conditions of use of the sign, but without producing glare for an excessive amount of light or poor visibility as a result of insufficient light.
- 1.2 The luminous area emitting a sign may be of a single colour or contain a pictogram on a specified background.
- 1.3 The single colour must correspond to the table of colours and their meanings set out in paragraph 4 of Part I.
- 1.4 Likewise, when the sign contains a pictogram, the latter must comply with all the relevant rules set out in Part II.

2 Specific rules governing use

2.1 If a device can emit both continuous and intermittent signs, the intermittent sign should be used to indicate a higher level of danger or a more urgent need for the requested/imposed intervention or action than is indicated by the continuous sign.

The duration of each flash and the frequency of the flashes of an intermittent illuminated sign must be such as to:

- ensure the proper perception of the message, and
- avoid any confusion either between different illuminated signs or with a continuous illuminated sign.
- 2.2 If a flashing sign is used instead of, or together with, an acoustic signal, identical codes must be used.

^{*} See paragraph 66 for examples.

2.3 Devices for emitting flashing signs in the event of grave danger must be under special surveillance or be fitted with an auxiliary lamp.

Part VII Minimum requirements for acoustic signals

1 Intrinsic features

- 1.1 Acoustic signals must:
- (a) have a sound level which is considerably higher than the level of ambient noise, so that it is audible without being excessive or painful;
- (b) be easily recognizable, particularly in terms of pulse length and the interval between pulses or groups of pulses, and be clearly distinct from any other acoustic signal and ambient noises.
- 1.2 If a device can emit an acoustic signal at variable and constant frequencies, the variable frequency should be used to indicate a higher level of danger or a more urgent need for the requested/imposed intervention or action in relation to the stable frequency.

2 Code

The signal for evacuation must be continuous.

Part VIII Minimum requirements for verbal communication

1 Intrinsic features

- 1.1 Verbal communication between a speaker or emitter and one or more hearers is to take the form of (sometimes coded) short texts, phrases, groups of words and/or individual words.
- 1.2 Spoken messages are to be as short, simple and clear as possible; the verbal skills of the speaker and the hearing abilities of the hearer(s) must be such as to ensure reliable verbal communication.
- 1.3 Verbal communication is direct (by means of the human voice) or indirect (by means of a human or artificial voice which is broadcast by whatever means is appropriate).

2 Specific rules governing use

- 2.1 The persons involved must have a good knowledge of the language used so that they are able to pronounce and understand the spoken message correctly and consequently behave in a way which is appropriate to health and/or safety.
- 2.2 If verbal communication is used instead of, or together with, gestures, code words should be used such as:

start to indicate the start of a command.stop to interrupt or end a movement.

end to stop the operation.
raise to have a load raised.
lower to have a load lowered.
forwards to be co-ordinated with the corresponding hand signals.

forwards
backwards
right
to be co-ordinated with the corresponding hand signals.
to be co-ordinated with the corresponding hand signals.
to be co-ordinated with the corresponding hand signals.

left to be co-ordinated with the corresponding hand signals.

danger for an emergency stop.

quickly to speed up a movement for safety reasons.

Part IX Minimum requirements for hand signals

1 Features

Hand signals must be precise, simple, expansive, easy to make and to understand, and clearly distinct from other such signals.

Where both arms are used at the same time, they must be moved symmetrically and used for giving one sign only.

Provided that they fulfil the conditions given above, the signals used may vary slightly from or be more detailed than those shown in paragraph 3; they must, however, be equally meaningful and comprehensible.

2 Specific rules governing use

- 2.1 The person giving the signs, hereinafter referred to as the 'signalman', will use arm/hand movements to give manoeuvring instructions to the person receiving the signs, hereinafter referred to as the operator.
- 2.2 The signalman must be able to monitor all manoeuvres visually without being endangered thereby.
- 2.3 The signalman's duties must consist exclusively of directing manoeuvres and ensuring the safety of workers in the vicinity.
- 2.4 If the conditions described in paragraph 2.2. are not fulfilled, one or more extra signalmen should be deployed.
- 2.5 The operator must interrupt the ongoing manoeuvre in order to request new instructions when he is unable to carry out the orders he has received with the necessary safety guarantees.

2.6 Accessories

The operator must be able to recognize the signalman without difficulty.

The signalman is to wear one or more appropriate distinctive items, e.g. a jacket, helmet, sleeves or armbands, or carry bats.

The distinctive items are to be brightly coloured, preferably all of the same colour and for the exclusive use of signalmen.

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SCHEDULE 1

3 Coded signals to be used

The following set of coded signals is without prejudice to other codes applicable at Community level, used for the same manoeuvres in certain sectors:

A General signals	
Both arms are extended horizontally with the	
palms facing forwards.	
The right arm points	
facing forwards.	
Both hands are clasped at	
chest height.	
B Vertical movements	
The right arm points	
upwards with the palm	
makes a circle.	
The right arm points	
facing inwards and slowly	
makes a circle.	
The hands indicate the	£ 5
relevant distance.	
	5-11-
	The right arm points upwards with the palm facing forwards. Both hands are clasped at chest height. B Vertical movements The right arm points upwards with the palm facing forward and slowly makes a circle. The right arm points downwards with the palm facing inwards and slowly makes a circle.



Meaning	Description C Horizontal movements	Illustration
MOVE FORWARDS	Both arms are bent with the palms facing upwards and the forearms make slow movements towards the body.	
MOVE BACKWARDS	Both arms are bent with the palms facing downwards and the forearms make slow movements away from the body.	
RIGHT to the signalman	The right arm is extended more or less horizontally with the palm facing downwards and slowly makes small movements to the right.	
LEFT to the signalman	The left arm is extended more or less horizontally with the palm facing downwards and slowly makes small movements to the left.	
HORIZONTAL DISTANCE	The hands indicate the relevant distance.	



DANGER Emergency stop	Both arms point upwards with the palms facing forwards.
QUICK	All movements faster.
SLOW	All movements slower.



Schedule 2 Regulation 4(5) relates to this Schedule

SCHEDULE 2

Documents specifying alternative hand signals

1 The standards issued by the British Standards Institution with the following standard numbers –

BS 6736:1986 Hand Signals for Agricultural Operations. BS 7121:1989 Code of practice for safe use of cranes.*

2 Appendix C of the Fire Service Training Manual.

^{*} BS 7121:1989 has been replaced by BS 7121-1:2006 Code of practice for safe use of cranes.

Schedule 3 Regulation 8 relates to this Schedule

SCHEDULE 3

Part I Revocations

Column 1	Column 2	Column 3
Title	Reference	Extent of revocation
The Offshore Installations (Operational Safety, Health and Welfare) Regulations 1976	SI 1976/1019; to which there are amendments not relevant to these Regulations.	Regulation 2(2).
The Safety Signs Regulations 1980	SI 1980/1471.	The whole Regulations.

Part II Modifications

1†

- 2 In the Dangerous Substances (Notification and Marking of Sites) Regulations 1990 –
 - (a) in regulation 2(1) -
 - (i) after the definition of "the 1994 Regulations" there shall be inserted the following definition
 - "the Safety Signs Regulations" means the Health and Safety (Safety Signs and Signals) Regulations 1996 (S.I. 1996/341);"; and
 - (ii) there shall be deleted the definition of "Part I of BS 5378";
 - (b) in regulation 5(2), for the words "clause 3.6 of Part I of BS 5378" thereshall be substituted the words "paragraph 3.2 of Part II of Schedule 1 to the Safety Signs Regulations";
 - (c) in regulation 6(3), for the words "clause 3.6" to "clause 3.9 of that Part" there shall be substituted the words "paragraph 3.2 of Part II of Schedule 1 to the Safety Signs Regulations".

[†] Paragraph 1 was revoked by SI 2005/1643.

References and further reading

References

- 1 Consulting employees on health and safety: A brief guide to the law Leaflet INDG232(rev2) HSE Books 2013 www.hse.gov.uk/pubns/indg232.htm
- 2 Managing for health and safety HSG65 (Third edition) HSE Books 2013 www.hse.gov.uk/pubns/books/hsg65.htm
- 3 Prevention of fire and explosion and emergency response on offshore installations. Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995. Approved Code of Practice and Guidance L65 HSE Books 1995 www.hse.gov.uk/pubns/books/l65.htm
- 4 Know your traffic signs: Official edition 2007 The Stationery Office
- 5 The Official Highway Code: 2007 Edition The Stationery Office
- 6 Manufacture and storage of explosives. Manufacture and Storage of Explosives Regulations 2005. Approved Code of Practice and guidance L139 HSE Books 2005 www.hse.gov.uk/pubns/books/l139.htm
- 7 Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance L22 (Fourth edition) HSE Books 2014 www.hse.gov.uk/pubns/books/l22.htm
- 8 Personal protective equipment at work (Second edition). Personal Protective Equipment at Work Regulations 1992 (as amended). Guidance on Regulations L25 (Second edition) HSE Books 2005 www.hse.gov.uk/pubns/books/l25.htm

Further reading

Standards (BS, EN and ISO)

BS EN ISO 7010:2012+A5:2015 Graphical symbols. Safety colours and safety signs. Registered safety signs British Standards Institution

BS 5499-4:2013 Safety signs. Code of practice for escape route signing British Standards Institution

BS 5499-10:2014 Guidance for the selection and use of safety signs and fire safety notices British Standards Institution

BS ISO 3864-1:2011 Graphical symbols and signs. Safety signs, including fire safety signs. Specification for geometric shapes, colours and layout British Standards Institution

BS ISO 3864-4:2011 *Graphical symbols. Safety colours and safety signs.*Colorimetric and photometric properties of safety sign materials British Standards Institution

BS 1710:2014 Specification for identification of pipelines and services British Standards Institution

BS 6736:1986 Code of practice for hand signalling for use in agricultural operations British Standards Institution

BS 7121-1:2006 Code of practice for safe use of cranes. General British Standards Institution

BS 7863:2009 Recommendations for colour coding to indicate the extinguishing media contained in portable fire extinguishers British Standards Institution

BS 5839-1:2013 The design, installation, commissioning and maintenance of fire detection and fire alarm systems in non-domestic premises British Standards Institution

BS 5839-8:2013 The design, installation, commissioning and maintenance of voice alarm systems British Standards Institution

BS EN 60849:1998, IEC 60849:1998 Sound systems for emergency purposes British Standards Institution

Regulations

Health and Safety (Safety Signs and Signals) Regulations 1996 SI 1996/341 The Stationery Office www.legislation.gov.uk

Regulatory Reform (Fire Safety) Order 2005 etc SI 2005/1541 The Stationery Office www.legislation.gov.uk

The Classification, Labelling and Packaging of Chemicals (Amendments to Secondary Legislation) Regulations 2015 (the CLP Regulations) SI 2015/21 The Stationery Office www.legislation.gov.uk

Management of Health and Safety at Work Regulations 1999 (the Management Regulations) SI 1999/3242 The Stationery Office www.legislation.gov.uk

Health and Safety at Work etc Act 1974 (Application outside Great Britain) Order 2013 SI 2013/240 The Stationery Office www.legislation.gov.uk

Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995 SI 1995/743 The Stationery Office www.legislation.gov.uk

Health and Safety at Work etc Act 1974 (c37) The Stationery Office 1974 www.legislation.gov.uk

Supply of Machinery (Safety) Regulations 2008 SI 2008/1597 as amended by the Supply of Machinery (Safety) (Amendment) Regulations 2011 SI 2011/2157 The Stationery Office www.legislation.gov.uk

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007 SI 2007/1573 The Stationery Office www.legislation.gov.uk

Manufacture and Storage of Explosives Regulations 2005 SI 2005/1082 The Stationery Office www.legislation.gov.uk

Dangerous Substances (Notification and Marking of Sites) Regulations 1990 SI 1990/304 The Stationery Office www.legislation.gov.uk

Work at Height Regulations 2005 SI 2005/735 The Stationery Office www.legislation.gov.uk

Workplace (Health, Safety and Welfare) Regulations 1992 SI 1992/3004 The Stationery Office www.legislation.gov.uk

Provision and Use of Work Equipment Regulations 1998 SI 1998/2306 The Stationery Office www.legislation.gov.uk

Personal Protective Equipment at Work Regulations 1992 SI 1992/2966 The Stationery Office www.legislation.gov.uk

Fire (Scotland) Act 2005 (asp 5) SI 2005 The Stationery Office www.legislation.gov.uk

Nuclear Installations Act 1965 (c57) SI 1965 The Stationery Office www.legislation.gov.uk

Further information

For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit www.hse.gov.uk/. You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.

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