

Safety signs and signals

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



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Guidance on Regulations

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This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.

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Introduction

1 The Health and Safety (Safety Signs and Signals) Regulations 1996 (the Safety Signs Regulations) implement European Council Directive 92/58/EEC on minimum requirements for the provision of safety signs at work. This guidance is aimed at helping employers meet their responsibilities under these Regulations. The Directive standardises safety signs throughout member states of the European Union so that wherever a particular safety sign is seen it provides the same message. The intention is that workers who move from site to site, such as service engineers, will not be faced with different signs at different workplaces. The Directive and these Regulations require employers to provide safety signs where other methods, properly considered, cannot deal satisfactorily with the risks (see paragraph 11). They cover traditional safety signs, such as the well-known 'no smoking sign' and other means of communicating health and safety information, such as hand signals, acoustic signals (eg warning sirens on machines) and verbal communications. A free leaflet *Signpost to the Health and Safety (Safety Signs and Signals) Regulations 1996*,¹ which is aimed at helping small businesses understand what is needed, is also available.

2 This publication consists of guidance (Parts 1-3) and the Regulations (Part 4). The signs are reproduced in full colour in paragraph 42. Part 1 'What the Regulations require' covers safety signs in general; Part 2 'Using safety signs' contains advice on their selection and use and explains the general requirements for the proper use of safety signs, including technical requirements (eg shape, colour etc) for different types of sign; Part 3 'Fire safety signs' covers similar details for fire safety signs.

3 The Regulations appear in Part 4, showing in one place much of the detail in the European Directive (ie Annexes I-IX) now contained in the UK requirements (ie Parts I-IX of Schedule 1 of the Safety Signs Regulations).

Summary of Regulations

4 The Regulations require employers to use a safety sign where there is a significant risk to health and safety that has not been avoided or controlled by the methods required under other relevant law, provided use of a sign can help reduce the risk. Safety signs are not a substitute for those other methods of controlling risks such as engineering controls and safe systems of work.

5 They apply to all workplaces and to all activities where people are employed, but exclude signs used in connection with transport or the supply and marketing of dangerous substances, products and equipment (see paragraph 21).

6 The Regulations require, where necessary, the use of road traffic signs in workplaces to regulate road traffic (but see paragraph 22).

Overall impact of Regulations - summary

7 Most firms already use safety signs to warn and instruct employees of risks to their health and safety. These Regulations are unlikely to impose any significant changes in these cases because:

- (a) the bulk of the signboards are the same as those in BS 5378 *Safety signs and colours*¹ and BS 5499:2002 *Graphical symbols and signs. Safety signs, including fire safety signs*.³ The signboards in the Regulations are included in paragraph 42 of this guidance;
- (b) the law already requires suitable illuminated signs and acoustic signals, eg fire alarms, to be used where necessary;
- (c) although the Regulations contain a code of hand signals to assist mechanical

- handling and vehicle manoeuvring, other equivalent codes are acceptable such as BS 6736 *Code of practice for hand signalling for use in agricultural operations*⁴ and BS 7121-1:2006 *Code of practice for safe use of cranes*;⁵
- (d) traffic routes and some dangerous locations (eg where people can slip, fall from heights, or there is low headroom) may need to be marked under the Workplace (Health, Safety and Welfare) Regulations 1992 or the Work at Height Regulations 2005. The Safety Signs Regulations specify the marking needed and are consistent with BS 5378 and BS 5499;
 - (e) although these Regulations require stores and areas containing significant quantities of dangerous substances to be identified by appropriate warning signs, they will mainly impact upon smaller stores. The majority of sites on which 25 tonnes or more of dangerous substances are stored can be expected to be marked in accordance with the Dangerous Substances (Notification and Marking of Sites) Regulations 1990. These have similar marking requirements for storage of most dangerous substances. Stores containing very small quantities or where labels on containers can clearly be seen from outside need not be marked.

Fire safety

8 These Regulations implement those parts of the Directive dealing with fire safety. Advice on the use of fire safety signs can be obtained from your enforcing authority for fire safety (see paragraph 113). In general, these Regulations will not require any changes where existing fire safety signs containing symbols comply with BS 5499. New signs are also acceptable if they are similarly chosen to comply with BS 5499 (see paragraph 91).

PART 1 ABOUT THE REGULATIONS

When did the Regulations come into force? (regulation 1)

9 The Regulations and duties on employers in respect of safety signs came into force on 1 April 1996.

What do the Regulations require? (regulation 4)

10 The Regulations require employers to ensure that safety signs are provided (or are in place) and maintained in circumstances where risks to health and safety have not been avoided by other means, for example engineering controls or safe systems of work.

11 In determining where to use safety signs, employers need to take into account the results of the risk assessment made under the Management of Health and Safety at Work Regulations 1999 (the Management Regulations). This assessment deals with hazard identification, the risks associated with those hazards, and the control measures to be taken. When the control measures identified in the assessment have been taken there may be a 'residual' risk such that employees need to be warned, and informed of any further measures necessary. Safety signs are needed if they will help to reduce this residual risk. If the risk is not significant there is no need to provide a sign.

12 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 must 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. In this case it may be appropriate to remind staff with the sign indicating that wearing foot protection is mandatory.

13 These Regulations do not require safety signs to be used where there are no significant risks to health and safety. Note, however, that certain fire safety signs may be specified under quite separate legal provisions (eg maybe to comply with requirements in a fire certificate). If you have any doubts check this with your enforcing authority for fire safety (see paragraph 113).

What about information, instruction and training? (regulation 5)

14 It may be appropriate for employers to explain to their employees the circumstances in which some safety signs are needed, and then check that their employees are aware of and understand the meaning of those signs they come into contact with during their work.

15 Research indicates that not all safety signs are well understood. It is therefore important that employers explain to their employees what action they will be taking to meet the requirements of these Regulations and ensure that employees are aware of and understand the meaning of safety signs and signals either seen or heard during their work. Although most safety signs are self-explanatory, employees (particularly new ones) may be unfamiliar with the meaning of some of the less commonly used signs. It is therefore important that the meaning of any unfamiliar sign is clearly explained, and that employees are aware of the

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consequences of not following the warning or instruction given by the sign. Text supplementing the sign may have a useful role here (see paragraph 40).

What is a safety sign? (regulation 2)

16 The Regulations cover a variety of methods of communicating health and safety information in addition to the traditional safety sign or signboard. 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 - see also paragraph 40). Signboards can be of the following types:



- (i) **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'. Note: signs complying with BS 5499 are also acceptable, see paragraph 91);

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- (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. 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 many emergency exit signs);
- (f) **acoustic signal** - a sound signal which is transmitted without the use of a human or artificial voice (eg 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 persons who are carrying out manoeuvres which are a hazard or danger to people;
- (i) **fire safety sign** - see paragraph 88.

Where and to whom do these Regulations apply? (regulation 4)

Employers/employees

17 The Regulations place duties on employers in respect of risks to their employees. As explained in paragraphs 10-13, the principal duty is to ensure that safety signs are in place.

18 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).

19 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.

Non-employees

20 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 or the self-employed 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 (see paragraph 18) regarding the health and safety of non-employees, and may find the safety signs described here helpful in meeting these general duties.

* Section 3 of the HSW Act requires both employers and the self-employed to ensure so far as is reasonably practicable the health and safety of others who are not their employees and who may be affected by their work activity.

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Supply of articles and dangerous substances (regulation 3(1)(a))

21 The Regulations have no requirements regarding the supply of either articles or dangerous substances. The labelling of these products is subject to separate legislation. For example the supply of chemicals is covered by the current edition of the Chemicals (Hazard Information and Packaging for Supply) Regulations (CHIP)* ('carriage' of dangerous substances is referred to in paragraph 44). Most machinery will be subject to the Supply of Machinery (Safety) Regulations 1992 (as amended)† which also contain marking requirements (supporting European standards provide ways of meeting these requirements).

Internal works traffic (regulations 3(1)(c) and 4(6))

22 The signs specified in Schedule 1 of the Regulations (reproduced in paragraph 42 of this guidance) 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*⁶ and *Highway code*⁷) to regulate road traffic within workplaces where necessary.

Application to merchant shipping (regulation 3(1)(d))

23 Seagoing ships are subject to separate merchant shipping legislation, administered by the Department for Transport. Regulation 3(1)(d) disapples the Regulations 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 may need to make similar checks to those described in paragraph 19 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. The Regulations also apply to offshore installations including those which are registered as ships (see paragraph 24).

Application offshore (regulations 3(2)(b) and 4(4))

24 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 2001. 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.

* The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 (CHIP), which include requirements on suppliers and consignors of chemicals to: classify chemicals; label and package them safely; and provide safety data sheets for dangerous chemicals.

† The Supply of Machinery (Safety) Regulations 1992 (as amended) implement in the UK the Machinery Directive and its amending Directives. The purpose of these Directives is to remove barriers to trade for machinery within the scope. The amended Regulations place duties on manufacturers, importers and suppliers etc of machinery. They will be revoked and replaced when the Supply of Machinery (Safety) Regulations 2008 SI 2008/1597 come into force on 29 December 2009.

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Fire safety (regulations 4(3) and 6)

25 The way these Regulations apply with respect to fire safety signs (eg fire exit signs and fire alarms) is described in Part 3.

PART 2 USING SAFETY SIGNS

Using safety signs effectively (Part 1 of Schedule 1)

26 This part aims to help employers 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

27 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 (but see paragraph 20).

28 If the hearing or sight of any employee is impaired for any reason, for example, by wearing personal protective equipment, additional measures may need to be taken to ensure that employees can see or hear the warning sign or signal, for example by increasing the brilliance or volume.

29 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

30 All safety signs need to 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 acoustic signals to see that they work properly.

31 A guaranteed supply of power or back-up in the event of failure may be necessary for safety signs and signals which require some form of power to enable them to operate (unless the hazard is itself eliminated by the power failure).

Safety colours

32 In these Regulations signs incorporating certain colours have specific meanings. Table 1 identifies the colours for safety signs generally (for fire safety signs, see paragraph 90).

Table 1 Safety sign colours (excluding fire safety signs)

<i>Colour</i>	<i>Meaning or purpose</i>	<i>Instruction and information</i>
Red	Prohibition sign Danger alarm	Dangerous behaviour; stop; shut-down; emergency cut-out devices, evacuate
Yellow or 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

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Using signboards

33 Where signboards are used in a workplace ensure that they are sufficiently large and clear so that they can be easily seen and understood. For example, the stretcher sign needs to show clearly where the equipment is. In conditions of poor natural light it may be necessary to provide either artificial illumination or signboards made of reflective material, or both (see also paragraph 100). Signboards also need to be durable, securely fastened and properly maintained (eg washed or resurfaced) to ensure they remain visible.

34 Permanent signboards are necessary, except in cases where the workplace or hazard is temporary. Even in these cases safety signs still need to 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.

35 **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 (including information signs) are placed together there is a danger of confusion or of important information being overlooked.

36 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

37 **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.

38 If Schedule 1 of the Regulations does not contain a suitable signboard (see pages 10-16) then it is acceptable to design your own, providing it conforms to the general principles described in the Regulations.

39 Pictograms used in signs need to be as simple as possible containing only necessary detail.

40 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.

41 Any supplementary sign or text used with a particular safety sign needs to 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 of the action to be taken such as 'face protection must be worn'.

Signboards appearing in Schedule 1

42 The intrinsic features of the four types of signboards referred to in Table 1, and also fire safety signs (see paragraph 90) are described below. An example of each sign appearing in Schedule 1 is also included.

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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 smoking



Smoking and naked flames forbidden



No access for pedestrians



Do not extinguish with water



Not drinkable



No access for unauthorised persons



No access for industrial vehicles



Do not touch

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Warning signs

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).



Flammable material or high temperature*



Explosive material



Toxic material



Corrosive material



Radioactive material



Overhead load



Industrial vehicles



Danger: electricity



General danger

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

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Laser beam



Oxidant material



Non-ionising radiation



Strong magnetic field



Obstacles



Drop



Biological risk*



Low temperature



Harmful or irritant material†

* 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, p.1.

† The background to this sign may exceptionally be amber if justified to differentiate it from a similar road safety sign.

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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).



Eye protection must be worn



Safety helmet must be worn



Ear protection must be worn



Respiratory equipment must be worn



Safety boots must be worn



Safety gloves must be worn



Safety overalls must be worn



Face protection must be worn



Safety harness must be worn



Pedestrians must use this route



**General mandatory sign
(to be accompanied where necessary by another sign)**

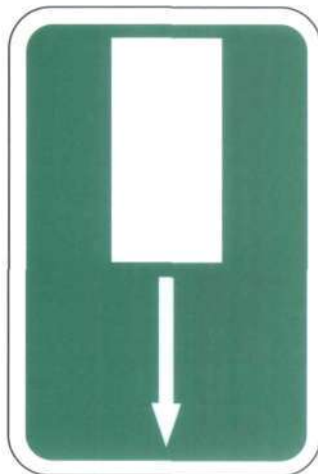
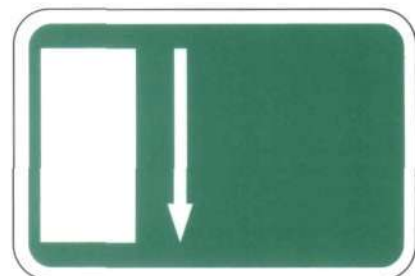
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Emergency escape or first-aid signs

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



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



First-aid signs



First-aid poster



Stretcher



Safety shower



Eyewash



Emergency telephone for first-aid or escape

Guidance

Firefighting signs

Intrinsic features:

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



Fire hose



Ladder



Emergency fire telephone



Fire extinguisher

Supplementary 'This way' signs for firefighting equipment



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Using signs on containers and pipes (Part III of Schedule 1)

43 Containers, tanks and vessels used in the workplace to contain dangerous substances, and the visible pipes in the workplace containing or transporting dangerous substances, will in general need to have signs or labels fixed to them unless the risk is adequately controlled or is not significant (see paragraphs 10-13). 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 need other arrangements for ensuring that employees know the dangerous properties of the contents of the container; for example, employers could provide suitable process instruction sheets or training for employees.

44 Although the Regulations require signs specified in Schedule 1 of the Regulations to be used, they also permit use of the hazard warning symbols specified in Directives 67/548/EEC and 88/379/EEC implemented by the current edition of the CHIP Regulations (see paragraph 21), or any other system of signs used throughout member states of the European Union for the transport of dangerous substances (such as those used under the ADR agreement*). From these options employers can choose the system of signs which will be best recognised by their employees. In practice, confusion is unlikely to arise since similar pictograms are used in the different types of signs. What may differ is the shape and, to a lesser extent, the colour of the signs.

45 Where signs or labels are used they may be supplemented by additional information, such as the name of the dangerous substance or preparation and details of the hazard.

46 The signs or labels need to be mounted on the sides that are visible, and to be durable. Labels can be in self-adhesive or painted form.

47 When deciding where signs or labels need to be placed on pipework containing dangerous substances, it is important not to use too many signs. This could cause those working nearby to be confused by multiple messages (see paragraph 35). 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 *Specification for identification of pipelines and services*⁸ 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.

* The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007 implement, among other things, the parts of ADR (European agreement concerning the international carriage of goods by road) and RID (Annex to Council Directive 96/49/EC on the approximation of the laws of the member states with regard to carriage of dangerous goods by rail) dealing with the use of signs.

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Using signs to mark areas, rooms and enclosures (Part III of Schedule 1)

48 It is important to mark those areas, rooms or enclosures used for the storage of significant quantities of dangerous substances or preparations 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 requirements arising from the Manufacture and Storage of Explosives Regulations 2005.

49 Stores containing a number of different substances may be indicated by the 'general danger' warning sign.

50 The signs or labels referred to above need to be positioned, as appropriate, near storage areas or on doors leading into storage rooms.

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

51 The provisions in the Safety Signs Regulations for marking stores containing dangerous substances overlap with the requirements of the NMS Regulations. Site entrances to most stores containing 25 tonnes of dangerous substances or more need to 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 Safety Signs 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 Safety Signs Regulations. The NMS Regulations do not apply offshore.

Using signs to mark obstacles, dangerous locations and traffic routes (Part V of Schedule 1)

52 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 needed 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 may be necessary - for example, highlighting the edge of a raised platform or area where objects may fall using markings consisting of a yellow and black (or red and white) stripes as shown below:



Signs for marking obstacles and dangerous locations

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53 The stripes are at an angle of 45 degrees, and more or less of equal size.

54 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 Safety Signs Regulations requires the markings to take the form of continuous lines, preferably yellow or white, taking into account the colour of the ground.

55 Traffic routes in built-up areas outdoors do not need to be marked if suitable pavements or barriers are already provided.

56 The Safety Signs 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 use of clearly defined traffic routes or where safe systems of work (which may include the use of banksmen to direct traffic) are needed to help meet general duties under the HSW Act 1974 (see paragraph 20), for example, when vehicles are operating (particularly during reversing) close to employees working on foot.

57 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 (Parts VI and VII of Schedule 1)

General principles

58 Regulation 24 of the Provision and Use of Work Equipment Regulations 1998 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 need to meet the minimum requirements described in the relevant part of Schedule 1 of the Regulations (Parts VI or VII) (but see also paragraph 24 in respect of offshore installations). The signals also need to be suitable for the working environment. For example, in an explosive atmosphere ensure they do not pose a risk of ignition.

59 Guidance on signals forming part of fire warning systems (eg fire alarms) is covered in paragraphs 103-112.

60 When acoustic signals or illuminated signs need 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.

61 Acoustic signals and illuminated signs need to be checked at regular intervals to ensure that they are functioning correctly. The more hostile the environment, the more frequently they will need to be checked.

Illuminated signs

62 The sign has to be bright enough to be seen, without causing glare (see also paragraph 100).

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63 Care is needed to ensure that a number of illuminated signs are not used together if this could give rise to confusion (compare paragraph 35). Confusion could also arise if an illuminated sign is placed close to any other similar light source.

64 The luminous area of the sign may be of a single safety colour (described in paragraphs 32 and 90) or contain a pictogram on a specified background consistent with the requirements of Schedule 1 of the Regulations.

65 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.

66 The duration and frequency of flashes for an intermittent illuminated sign need to be such as to ensure the message is properly understood, and avoid any confusion with other illuminated signs, including continuous illuminated signs.

67 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 need to be in line with both the pulse length and interval for an acoustic signal. The choice of equipment and the way it operates will, of course, need to take account of other risks (see paragraph 11). 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.

68 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

69 So that they can be heard, acoustic signals need to 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.

70 Ensure that acoustic signals are not used more than one at a time.

71 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 (compare paragraph 65).

72 Acoustic signals for fire alarms are covered in paragraphs 103-112.

Using hand signals to direct hazardous operations (Part IX of Schedule 1)

73 Hand signals can be used to direct hazardous operations such as crane or vehicle manoeuvres. Ensure that the signals are precise, simple, easy to make and to understand.

74 Check also that the signaller is competent to make hand signals, and is trained in their correct use.

Guidance

Specific rules governing use

75 The signaller needs to be able to see all the manoeuvres being made by the people receiving the signals without being endangered by them.

76 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).

77 In some cases the precautions described above may need supplementing, 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.

78 When an operator is unable to continue the manoeuvre safely, the operation needs to be discontinued until further instructions are received from the signaller.

79 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. 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

80 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 or BS 7121-1:2006 which are referred to in Schedule 2 of the Regulations.

81 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.

82 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 (Part VIII of Schedule 1)

83 Verbal signals can also be used to direct hazardous operations (see also paragraph 73). Such signals can be spoken messages given either by human or artificial voice, and either directly or recorded. Spoken messages need to be clear, concise, and understood by the listener.

84 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).

Guidance

Specific rules governing use

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

86 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

<i>Code word</i>	<i>Meaning</i>
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

87 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.

PART 3 FIRE SAFETY SIGNS

What is a fire safety sign? (regulation 2)

88 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; or
- (c) gives warning in case of fire.

When are fire safety signs required?

89 Duties on employers to provide these signs will mostly arise from, for England and Wales, the Regulatory Reform (Fire Safety) Order 2005, and for Scotland, the Fire (Scotland) Act 2005, and other fire legislation. The effect here of the Safety Signs Regulations will in most cases be to describe the types of sign which may be used. Often the enforcing authority for fire safety will determine where to locate the signs (eg if a fire certificate is required). In other cases employers will need to provide signs depending on the outcome of their assessment of risks to health and safety (see paragraphs 10-13). If changes to existing signs are proposed and a fire certificate is in force, check first with your enforcing authority responsible for issuing the certificate.

Safety colours

90 Information on colours for safety signs is given in paragraph 32 and Table 1. For fire safety signs in particular the colours are given in Table 3.

Table 3 Colours for fire safety signs

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

What about existing signs? (regulation 6)

91 Fire safety signs containing symbols or pictograms which conform to the requirements of BS 5499 will meet the requirements in the new Regulations, provided they continue to fulfil their purpose effectively, as shown below.



Example of BS 5499 sign

Guidance

92 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 (see also paragraph 99).

What do the signs look like?

93 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 (see pages 14-16). As for safety signs generally (see paragraph 37), 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.

Maintenance

94 All signs need to be properly maintained. It is also important that signs are fixed securely and are sufficiently large to be clearly seen (see also paragraph 33).

Using signs in buildings and structures

95 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) need to be clearly indicated so that people know that there are ways to leave other than the way they use to enter. In addition, the provision of well-signposted exits in full view will give a feeling of security in an emergency.

96 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.

97 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.

98 In buildings in multiple occupation 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.

99 Your enforcing authority for fire safety (see paragraph 113) may, in addition to the fire safety signs referred to in these Regulations, require provision of certain supplementary signs contained in BS 5499 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 may need to be shown on the appropriate faces of the door. Check with your enforcing authority (see paragraph 113) if you have any doubts.

100 If the level of natural light is poor, then adequate illumination (which includes emergency lighting) will be needed. Signs incorporating photoluminescent materials may also have a role in poor light conditions.

Marking and identifying firefighting equipment (Part IV of Schedule 1)

101 Table 3 highlights the requirement in the Regulations 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 needs to be sufficiently large to allow ready location of the firefighting equipment. Further information on the intrinsic features of signboards and what they look like is given in paragraph 42. Note that these Regulations do not cover the colour coding of equipment such as fire extinguishers although advice on this can be found in BS 7863:1996 *Recommendations for colour coding to indicate the extinguishing media contained in portable fire extinguishers*.⁹

102 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.

Fire alarms

103 The aim 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.

104 Fire alarms are included in the term 'acoustic signal'. The definition in the Regulations is '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 (see also paragraph 69);
- (b) is easily recognisable and distinct from other acoustic signals and ambient noise; and
- (c) is continuous for evacuation (but see also paragraph 110).

105 The method of giving warning of fire will vary from workplace to workplace. However, it needs to 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 fire-warning system (eg conforming to BS 5839 *Fire detection and fire alarm systems for buildings*).¹⁰

106 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).

107 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 will normally need to be prepared in advance and in some cases in appropriate languages. The fire warning system needs to 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 will need

Guidance

to take priority and override other facilities of the system. Further information is given in BS 5839 and in BS EN 60849:1998, IEC 60849:1998 *Sound systems for emergency purposes*.¹¹

108 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.

109 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.

110 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.

111 If a staged fire warning system is being considered it is advisable to check with your enforcing authority for fire safety before installation.

112 Your enforcing authority for fire safety (see paragraph 113) may specify certain maintenance requirements for your fire warning system, but in general all fire alarms will need to be regularly maintained. This is necessary to ensure they work properly and can be heard throughout the workplace. For manually operated sounders (see paragraph 105) 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. Your installer may be able to advise about necessary maintenance, alternatively contact your enforcing authority for fire safety.

Enforcing authority for fire safety

113 Further advice on the application of these Regulations to fire safety signs can be obtained from your enforcing authority for fire safety, that is, from fire officers, environmental health officers or building control officers of local authorities, or in cases where the Regulatory Reform (Fire Safety) Order 2005 applies,* HSE inspectors.

Information, instruction and training

114 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 need to be clear about the action to take if the fire alarm is sounded.

* 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.

PART 4 THE HEALTH AND SAFETY (SAFETY SIGNS AND SIGNALS) REGULATIONS 1996

Regulation 1

Regulation 1

Citation and commencement

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

Regulation

Interpretation

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

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

"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^(a) 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;*

"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;

2

(a) SI 2007/1573.

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

Regulation

"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.

2

Regulation 3

Application

Regulation

(1) These Regulations shall not apply -

- (a) to signs used in connection with the supply of any dangerous substance, preparation, 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.

(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.

(a) SI 1995/263.

* SI 1995/263 replaced by the Health and Safety at Work etc Act (Application outside Great Britain) Order 2001 SI 2001/2127.

3

Regulation 4

Provision and maintenance of safety signs

Regulation

(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^(a) * 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^(b)) -

- (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 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,^(c) that sign shall be used whether or not that Act applies to that place of work.

(a) SI 1999/3242 * '1999' substituted by SI 1999/3242.

(b) SI 1995/743.

(c) 1984 c. 27.

Regulation 5

Information, instruction and training

Regulation

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

Regulation

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

Regulation

7

Notwithstanding regulation 3 of the Health and Safety (Enforcing Authority) Regulations 1989^(a), 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^(b) 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.

^(a) SI 1989/1903.

^(b) SI 1976/2003, amended by SI 1985/1333, SI 1987/37 and SI 1992/1811.

* Regulation 7(a)(i) has been revoked, in relation to Scotland, by SSI 2006/457. The Fire Certificates (Special Premises) Regulations 1996 were revoked by the Regulatory Reform (Fire Safety) Order 2005.

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.

Schedule 1

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

Schedule

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:

Schedule

- 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.

<i>Colour</i>	<i>Meaning or purpose</i>	<i>Instructions and information</i>
Red	Prohibition sign	Dangerous behaviour
	Danger alarm	Stop, shutdown, emergency cut out devices, Evacuate
	Fire-fighting equipment	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.

Schedule

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 dangerous substances or preparations 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.*

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.*

Schedule

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 dangerous substances or preparations defined in Directives 67/548/EEC^(a) and 88/379/EEC^(b) and containers used for the storage of such dangerous substances or preparations, together with the visible pipes containing or transporting dangerous substances and preparations, must be labelled (pictogram or symbol against a coloured background) in accordance with those Directives.

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,
- supplemented by additional information, such as the name and/or formula of the dangerous substance or preparation and details of the hazard,
- for the transporting of containers at the place of work, supplemented or replaced by signs applicable throughout the Community for the transport of dangerous substances or preparations.

2 Signs must be mounted as follows:

- on the visible side(s),
- in unipliable, 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.

* Editorial note: Descriptions and colour reproductions of each type of sign appearing in this Schedule are on pages 10-16.

(a) OJ No L196, 16.8.1967, p1.

(b) OJ No L187, 16.7.1988, p14.

Schedule

5 Areas, rooms or enclosures used for the storage of significant quantities of dangerous substances or preparations 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 dangerous substances or preparations 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.

1.4 Editorial note: See paragraph 52 for examples.

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.

Schedule

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.*

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.*

Schedule

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.
—backwards	
—right	
—left	
—danger	for an emergency stop.
—quickly	to speed up a movement for safety reasons.

Schedule**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.

3 Coded signals to be used

Preliminary remark:

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

Schedule

Meaning

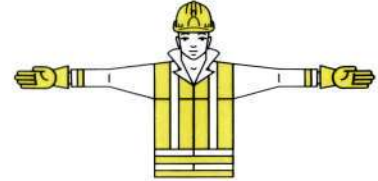
Description

Illustration

A. General signals

START
Attention
Start of Command

both arms are extended horizontally with the palms facing forwards.



STOP
Interruption
End of movement

the right arm points upwards with the palm facing forwards.



END of the operation

both hands are clasped at chest height.



B. Vertical movements

RAISE

the right arm points upwards with the palm facing forward and slowly makes a circle.



LOWER

the right arm points downwards with the palm facing inwards and slowly makes a circle.



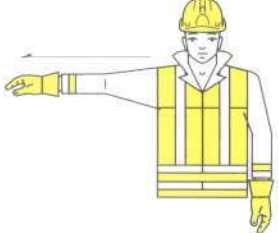
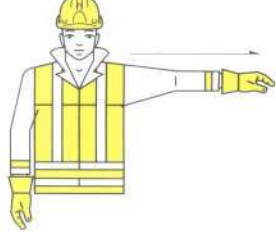

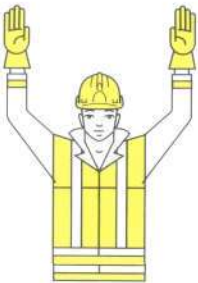


VERTICAL DISTANCE

the hands indicate the relevant distance.



Schedule

<i>Meaning</i>	<i>Description</i>	<i>Illustration</i>
<i>C. Horizontal movements</i>		
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.	
<i>D. Danger</i>		
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

Documents specifying alternative hand signals

1 *The standards issued by the British Standards Institute 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.*

2

Schedule 3

Regulation 8 relates to this Schedule

Schedule

Part I Revocations

Column 1 <i>Title</i>	Column 2 <i>Reference</i>	Column 3 <i>Extent of revocation</i>
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.

3

Schedule 3

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" there shall 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.

(a) *SI 1990/304, amended by SI 1993/1746 and SI 1994/669.*

3

References

- 1 *Signpost to the Health and Safety (Safety Signs and Signals) Regulations 1996* Leaflet INDG184 HSE Books 1996 (single copy free or priced packs of 15 ISBN 978 0 7176 1139 3) www.hse.gov.uk/pubns/indg184.htm
- 2 BS 5378-2:1980 *Safety signs and colours. Specification for colorimetric and photometric properties of materials* British Standards Institution
- 3 BS 5499:2002 *Graphical symbols and signs. Safety signs, including fire safety signs. Signs with specific meanings* Parts 1 and 5 British Standards Institution
- 4 BS 6736:1986 *Code of practice for hand signalling for use in agricultural operations* British Standards Institution
- 5 BS 7121-1:2006 *Code of practice for safe use of cranes. General* British Standards Institution
- 6 Department for Transport *Know Your Traffic Signs: Official Edition* (Fifth edition) The Stationery Office 2007 ISBN 978 0 11 552855 2 www.dft.gov.uk
- 7 *The Official Highway Code: 2007 Edition* The Stationery Office 2007 ISBN 978 0 11 552814 9 *Highway Code* online version www.direct.gov.uk/highwaycode
- 8 BS 1710:1984 *Specification for identification of pipelines and services* British Standards Institution
- 9 BS 7863:1996 *Recommendations for colour coding to indicate the extinguishing media contained in portable fire extinguishers* British Standards Institution
- 10 BS 5839-1:2002+A2:2008 *Fire detection and fire alarm systems for buildings. Code of practice for system design, installation, commissioning and maintenance* British Standards Institution
- 11 BS EN 60849:1998, IEC 60849:1998 *Sound systems for emergency purposes* British Standards Institution

Useful information

Regulations

Health and Safety (Safety Signs and Signals) Regulations 1996 SI 1996/341 The Stationery Office 1996 ISBN 978 0 11 054093 1 (as amended)

Workplace (Health, Safety and Welfare) Regulations 1992 SI 1992/3004 The Stationery Office 1992 ISBN 978 0 11 025804 1 (as amended)

Dangerous Substances (Notification and Marking of Sites) Regulations 1990 SI 1990/304 The Stationery Office 1990 ISBN 978 0 11 003304 4 (as amended)

Work at Height Regulations 2005 SI 2005/735 The Stationery Office 2005 ISBN 978 0 11 072563 5 (as amended)

Health and Safety at Work etc Act 1974 (c.37) The Stationery Office 1974 ISBN 978 0 10 543774 1

Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 SI 2002/1689 The Stationery Office 2002 ISBN 978 0 11 042419 4 (as amended)

Supply of Machinery (Safety) Regulations 1992 SI 1992/3073 The Stationery Office 1992 ISBN 978 0 11 025719 8 (as amended) (will be revoked when the *Supply of Machinery (Safety) Regulations 2008* SI 2008/1597 The Stationery Office 2008 ISBN 978 0 11 081892 4 come into force on 29 December 2009)

Health and Safety at Work etc Act 1974 (Application Outside Great Britain) Order 2001 SI 2001/2127 The Stationery Office 2001 ISBN 978 0 11 029567 1

Construction (Design and Management) Regulations 2007 SI 2007/320 The Stationery Office 2007 ISBN 978 0 11 075789 6

Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007 SI 2007/1573 The Stationery Office 2007 ISBN 978 0 11 077469 5

Further reading

Management of health and safety at work. Management of Health and Safety at Work Regulations 1999. Approved Code of Practice and guidance L21 (Second edition) HSE Books 2000 ISBN 978 0 7176 2488 1

Safe use of work equipment. Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and guidance L22 (Third edition) HSE Books 2008 ISBN 978 0 7176 6295 1

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 ISBN 978 0 7176 6139 8

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Safety signs and signals

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

The Health and Safety (Safety Signs and Signals) Regulations 1995 implemented a European Council Directive on minimum requirements for the provision of safety signs at work. The Directive standardised safety signs throughout EU member states so that wherever a particular safety sign is seen it provides the same message. The guidance falls into three parts: What the Regulations require; Using safety signs; and Fire safety signs. The Regulations are given in Part 4.

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