

ESTATES OPERATIONS

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CODE of PRACTICE
SAFETY SIGNAGE
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Please Note – the guidance provided in this Code of Practice pertains only to the Estates Operations Group and its activities. For Imperial College’s Health & Safety policies and Codes of Practice go to: <http://www.imperial.ac.uk/safety/>.

INTRODUCTION

This Code of Practice sets down the standards for the use of safety signage, i.e. colour, design, dimensions, use etc. It is intended to assist in meeting the requirements of current legislation and sets out procedures on how to achieve safe systems of work.

Over and above the general duty of care owed by the College to its staff, students and others under the Health and Safety at Work etc. Act 1974, all safety signage is legislated by The Health and Safety (Safety Signs and Signals) Regulations 1996.

This Code of Practice provides the following:

- A definition and the scope of the applicable Regulations
- The duties imposed on the employer / employees / other
- Responsibilities of duty holders and employees

1. Overview and Introduction to Safety Signage

The Health and Safety (Safety Signs and Signals) Regulations 1996 bring into force the EC Safety Signs Directive (92/58/EEC) on the provision and use of safety signs at work. The purpose of the Directive is to encourage the standardisation of safety signs throughout the member states of the European Union so that safety signs, wherever they are seen, have the same meaning. The Regulations cover various means of communicating health and safety information. These include the use of illuminated signs, hand and acoustic signals (eg fire alarms), spoken communication and the marking of pipework containing dangerous substances. These are in addition to traditional signboards such as prohibition and warning signs. Fire safety signs (ie signs for fire exits and fire-fighting equipment) are also covered.

BS 5499: 2002 specifies requirements for the creation and design of graphical symbols for use in safety signs, including fire safety signs. It specifies requirements for the design of graphical symbols suitable for use in safety signs for submission for registration as approved safety signs, including line thickness, the use of determinants and how to indicate negation. It also specifies a series of templates to be used in the design of graphical symbols for different types of safety signs.

2. Duties Imposed on the Employer/Employees/Others

The Health and Safety (Safety Signs and Signals) Regulations require employers to provide specific safety signs whenever there is a risk that has not been avoided or controlled by other

means, e.g. by engineering controls and safe systems of work. Where a safety sign would not help to reduce that risk, or where the risk is not significant, there is no need to provide a sign;

- They require, where necessary, the use of road traffic signs within workplaces to regulate road traffic;

They also require employers to:

- maintain the safety signs which are provided by them,
- explain unfamiliar signs to their employees and tell them what they need to do when they see a safety sign.

The Regulations apply to all places and activities where people are employed, but exclude signs and labels used in connection with the supply of substances, products and equipment or the transport of dangerous goods.

Therefore we shall 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.
- They 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.
- They 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.
- They 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 consequences of not following the warning or instruction given by the sign. Text supplementing the sign may have a useful role here.

General rules on use

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.

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

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.

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

In these Regulations signs incorporating certain colours have specific meanings. Table 1 identifies the colours for safety signs

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 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

Using signboards

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.

Signboards also need to be durable, securely fastened and properly maintained (e.g. washed or resurfaced) to ensure they remain visible.

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.

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.

If circumstances change, making a particular signboard unnecessary (i.e. if the hazard no longer exists), it is important to ensure its removal so that misleading information is not displayed.

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.

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'.

3. Responsibilities of Duty Holders and Employees

The College has a responsibility to ensure that all safety signs and signals comply with The Health and Safety (Safety Signs and Signals) Regulations 1996.

To this end we have appointed suitably competent persons to carry out the actions below:

- Provide safety signs and/or signals where there is a risk to health and safety not controlled by other means;
- Ensure a risk assessment made under the Management of Health and Safety at Work Regulations 1999 (the Management Regulations) has been undertaken and the results are actioned/adhered to;
- Ensure that employees are aware of and understand the meaning of those signs they come into contact with during their work;
- Provide suitable information, instruction and training to employees;
- Ensure that suitable maintenance is undertaken on safety signs installed to site;
- Act promptly to remedy any defects.

Employees and students have a responsibility to adhere to the information, instruction and training provided. They must immediately bring instances having the potential to cause harm to the attention of their immediate line manager.

Appendix 1 - What is a safety sign?

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. 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 (e.g. 'emergency exit/escape route'. Note: signs complying with BS 5499 are also acceptable);
- (c) safety colour – a colour to which a specific meaning is assigned (e.g. yellow means 'be careful' or 'take precautions');
- (d) symbol or pictogram – although some variation in detail is acceptable provided the meaning is the same. They are for use on a signboard or illuminated sign (e.g. 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 (e.g. many emergency exit signs);
- (f) acoustic signal – a sound signal which is transmitted without the use of a human or artificial voice (e.g. 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 – A fire safety sign is defined in regulation 2(1) as a sign (including an illuminated sign or an acoustic signal) which:
 - provides information on escape routes and emergency exits in case of fire;
 - provides information on the identification or location of firefighting equipment; or
 - gives warning in case of fire.

Appendix 2 – Intrinsic Features

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).

e.g.



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).

e.g.



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).

e.g.



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).

e.g.



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).

e.g.



British Standards

Further guidance on the creation and design of graphical symbols for use in safety signs including minimum size, break down of colour, line thickness, context, contrast etc can be found within BS 5499-6:2002 - Graphical symbols and signs — Safety signs, including fire safety signs.

Web link to BSI website:

N.B. The first link allows *College members* to access British Standards Online (BSOL) which gives you access to many British Standards and Eurocodes in full text and free of charge.
<http://www.imperial.ac.uk/admin-services/library/> - search for 'bsi online'.