SAFETY COLOURS
AND SAFETY SIGNS

COULEURS ET
SIGNES DE SECURITE

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SAFETY COLOURS
AND SAFETY SIGNS

1 LEGAL BASIS

This code is based on the document SAPOCO/42, 1988 edition, which defines the safety policy at CERN. It is issued in application of the CERN Staff Rules and Regulations.

2 SCOPE

This code defines for CERN the standard safety colours and safety signs to give information on existing risks or dangers and to indicate an interdiction, a warning, a mandatory action, an emergency escape, or the location and identification of first-aid and fire-fighting equipment.

This code also takes into account the EEC Directive 91/C53/06 which requires that the laws, regulations and administrative provisions in the EEC Member States must comply with this Directive as from 1 January 1994 onwards.
# GENERAL REQUIREMENTS CONCERNING SAFETY SIGNS

The information and instructions in the following table apply to all safety signs:

<table>
<thead>
<tr>
<th>COLOUR</th>
<th>MEANING or PURPOSE</th>
<th>INSTRUCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>Prohibition</td>
<td>Avoid dangerous actions</td>
</tr>
<tr>
<td></td>
<td>Danger - Alarm</td>
<td>Stop, shut down, turn off power, evacuate</td>
</tr>
<tr>
<td></td>
<td>Fire-fighting equipment</td>
<td>Identification and location</td>
</tr>
<tr>
<td>YELLOW</td>
<td>Warning</td>
<td>Be careful, take precautions, examine</td>
</tr>
<tr>
<td>BLUE</td>
<td>Obligation</td>
<td>Prescription of specific behaviour or action. Obligation to wear personal protective gear.</td>
</tr>
<tr>
<td>GREEN</td>
<td>Emergency escape routes, First-aid</td>
<td>Doors, exits, routes. Equipment, identification, location.</td>
</tr>
<tr>
<td></td>
<td>No danger</td>
<td>Back to normal</td>
</tr>
</tbody>
</table>

A safety sign (signboard) refers to a specific object, activity or situation and provides information (warning) about a hazard or danger to health and safety at work, a prohibition, a mandatory action, an escape route or the location of fire-fighting and first-aid equipment.

Signboards must be installed by the Division (Group) responsible for the work or the operation of equipment creates hazards or danger. These signboards must be placed at a suitable height, taking into account any obstacles, either at the access points to an area (general risk), or in the immediate vicinity of a specific risk or object. Phosphorescent colours, reflecting materials or artificial lighting should be used whenever the level of natural light is inadequate.
The placing of too many signs too close together must be avoided. Signboards must be cleaned, maintained or replaced (if necessary) at appropriate intervals. A signboard must be removed when the situation to which it refers no longer exists.

General European safety signboards relevant for CERN are shown in Annex I and the main CERN safety signboards in Annex II. CERN safety signboards relate to special activities or dangers at CERN or provide specific and detailed information. Where general safety signboards are considered not to be sufficiently complete or explicit, CERN safety signboards should be used (example: radiation, dangers due to electricity, etc.).

4 MARKING OF CONTAINERS AND PIPES

Containers which hold dangerous substances must be labelled as defined in the Chemical Safety Code B. Self-adhesive or painted signs must be placed on the visible side(s) of the container.

Visible pipes must be colour-coded indicating the main categories of contents:

<table>
<thead>
<tr>
<th>water</th>
<th>green</th>
</tr>
</thead>
<tbody>
<tr>
<td>air</td>
<td>light blue</td>
</tr>
<tr>
<td>steam</td>
<td>silver grey</td>
</tr>
<tr>
<td>flammable oils / liquids</td>
<td>brown</td>
</tr>
<tr>
<td>oxygen (gas / liquid)</td>
<td>white</td>
</tr>
<tr>
<td>gases other than air and oxygen</td>
<td>amber</td>
</tr>
<tr>
<td>acids</td>
<td>purple</td>
</tr>
<tr>
<td>bases</td>
<td>black</td>
</tr>
</tbody>
</table>

Preferably, the entire visible length of the pipe should be painted in the appropriate colour but, at least near the most dangerous points (valves, joints, etc.), rings must be painted at reasonable intervals and appropriate labels (name stickers) must be installed.

5 OBSTACLES AND DANGEROUS LOCATIONS

Places which are accessible to persons and present a risk of colliding with obstacles, of falling or dropping of objects, should be marked with alternating yellow and black stripes of about equal size, inclined at an angle of approximately 45°.

6 IDENTIFICATION AND LOCATION OF FIRE-FIGHTING EQUIPMENT

Fire-fighting equipment must be identified by a location signboard mounted at the place where such equipment is located (see Annex 1).

The identifying colour for such equipment is RED.
a) **Alternating current (AC):**

<table>
<thead>
<tr>
<th>Active cables</th>
<th>Unspecified phase</th>
<th>brown</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Phase R</td>
<td>orange</td>
</tr>
<tr>
<td>and conductors</td>
<td>Phase S</td>
<td>green</td>
</tr>
<tr>
<td></td>
<td>Phase T</td>
<td>violet</td>
</tr>
<tr>
<td></td>
<td>Neutral</td>
<td>light blue</td>
</tr>
<tr>
<td>Earth (ground)</td>
<td></td>
<td>combination of green and yellow</td>
</tr>
</tbody>
</table>

b) **Direct current (DC):**

<table>
<thead>
<tr>
<th>Active cables</th>
<th>Positive</th>
<th>red</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Negative</td>
<td>dark blue</td>
</tr>
<tr>
<td>and conductors</td>
<td>Mid conductor</td>
<td>light blue</td>
</tr>
<tr>
<td>Earth (ground)</td>
<td></td>
<td>combination of green and yellow</td>
</tr>
</tbody>
</table>

Existing electrical installations need not to be modified for the sole purpose of adapting them to the present colour code. However, wherever yellow/green is found to have been used for an active conductor, the latter must be replaced immediately with one in the correct colour.

For modifications of existing installations and for new installations, yellow/green must be used in all cases for earth (ground) only and for no other purpose. For the other conductors, non-standard colours except yellow/green are permitted for the insulation, but only if the correct colours are not available and only if sleeves in the correct colours are mounted on the ends of the conductors and at junctions.

8 **ENTRY INTO FORCE**

This code enters into force on the date of publication.

From this date on, new buildings, installations and equipment must be equipped with safety signs according to the present code. Safety signs not in accordance with this code must be replaced by new signs as soon as possible, but not later than 1 January 1994.
List of Annexes

ANNEX I: General European Safety Signs (Signboards)

1) Prohibition signs
2) Warning signs
3) Mandatory signs
4) Emergency escapes, first-aid signs
5) Fire-fighting signs

ANNEX II: CERN-Specific Safety Signs (Signboards)

1) Radiation
2) Flammable gases and chemical materials
3) Electrical
4) General
General European Safety Signs
Panneaux européens de sécurité générale

1) Prohibitory signs

Intrinsic features: circular shape, black pictogram on white background, red edging, red diagonal line.

Caractéristiques intrinsèques: forme circulaire, pictogramme noir sur fond blanc, bordure et bande diagonale rouges.

No smoking
Défense de fumer

Smoking and open flames forbidden
Défense de fumer et flamme nue interdite

Do not extinguish with water
Défense d’éteindre avec de l’eau

No access for industrial vehicles
Interdit aux véhicules de manutention

Do not touch
Ne pas toucher

No pacemakers
Interdit aux porteurs de pacemakers
2) Warning signs

Intrinsic features: triangular shape, black pictogram on yellow background, black edging.

Caractéristiques intrinsèques : forme triangulaire, pictogramme noir sur fond jaune, bordure noire.

Flammable material or high temperature
Matières inflammables ou haute température

Harmful or irritant material
Matières nocives ou irritantes

Toxic material
Matières toxiques

Corrosive material
Matières corrosives

Radiation or radioactive material
Rayonnement ou matières radioactives

Overhead load
Charges suspendues

Non ionizing radiation
Rayonnements non ionisants

Strong magnetic field
Champ magnétique important
Obstacles
Trébuchement
Industrial vehicle
Véhicules de manutention
Attention : passage de chariots

Drop
Chute avec dénivelation

Slippery surface
Surface glissante

Danger
électrique

Danger
electricity
3) Mandatory signs

Intrinsic features: round shape, white pictogram on blue background.

Caractéristiques intrinsèques: forme circulaire, pictogramme blanc sur fond bleu.
4) **Emergency escape, first aid signs**

**Sorties de secours et panneaux de premiers secours**

**Intrinsic features:** rectangular or square shape, white pictogram on green background.

**Caractéristiques intrinsèques:** forme rectangulaire ou carrée, pictogramme blanc sur fond vert.

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Emergency exit  
Escape route

Sortie, voie de secours

**This way**  
(supplementary sign)

Direction à suivre

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First aid post  
Stretcher  
Safety shower  
Eyewash

Poste premiers secours  
Civière  
Douche de sécurité  
Rinçage des yeux
5) Fire fighting signs  

Panneaux concernant la lutte contre l'incendie

Intrinsic features: rectangular or square shape, white pictogram on red background.

Caractéristiques intrinsèques: forme rectangulaire ou carrée, pictogramme blanc sur fond rouge.

- Fire hose
- Fire extinguisher
- Lance à incendie
- Extincteur
1) **Radiation**

![Image of radiation sign]

Warning panel for a controlled area. The bottom part of a) bears one of the texts b), c) or d).

Panneau de signalisation pour une zone contrôlée. Le bas du panneau montré en a) porte une des inscriptions b), c) ou d).
Warning panel for high radiation sectors

Panneau de signalisation pour des secteurs à haut niveau de rayonnement

Warning panels for areas where radioactive contamination is possible

Panneaux de signalisation pour des zones où existe une possibilité de contamination radioactive
2) Flammable gases and chemical materials

Gaz inflammables et matières chimiques

Gaz inflammable
Liquide inflammable
Matière inflammable
3) **Electrical**

Reserved for cables and HT apparatus

Réservé pour câbles et appareils HT

Identification of HT distribution equipments

Identification des appareils de distribution HT

For small apparatus

Pour petits appareils
Reserved for
LT distribution

Réservé pour les tableaux
de distribution BT

For places where danger
of electrocution exists

Pour tout endroit où il y a
des dangers d’électrocution

For apparatus which must be
connected to a special earth

Pour appareils devant être
branchés sur une terre spéciale
Identification indicated on the black band

Indication indiquée sur la bande noire

For identification of closed electrical service localities

Pour identification des locaux fermés des services électriques

For all interventions on electrical equipments and power lines

Pour tous travaux sur appareils et lignes électriques
To be placed at access points to cranes

Doit être placé à l’accès des ponts roulants

To identify emergency (red) telephones

Pour identification des téléphones de secours (téléphones rouges)

To be placed at each entrance to a work site

A placer à chaque entrée de chantier
4) General signs

This sign is displayed on vehicles carrying radioactive or irradiated material.

Ce signal est affiché sur les véhicules qui transportent des matériaux radioactifs ou irradiés.

Also used on standard luminous panels.

Peut être également utilisé sur des panneaux standards lumineux.

Prohibitory signs for strong magnetic fields.

Panneaux d’interdiction en cas de champs magnétiques importants.
No cleaning
Ne pas nettoyer