

# FIRE SAFETY PRECAUTIONS SUMMARY

1. GENERAL REMARKS .....	3
2. STAND CONSTRUCTION AND FITTING.....	3
2.1 EUROCLASS (EUROPEAN NORME).....	4
2.2 STAND FRAMEWORK, PARTITIONS AND LARGE FURNITURE.....	4
2.3 FINISHING MATERIALS.....	4
2.3.1 Walls finishes.....	4
2.3.2 Curtains – Hangings – Net curtains .....	4
2.3.3 Paints and Varnishes .....	5
2.3.4 Finishes to floors, podiums, platforms and steps.....	5
2.4 DECORATIVE ITEMS .....	5
2.4.1 Loose laid elements .....	5
2.4.2 Floral decorations.....	5
2.4.3 Furniture.....	5
2.4.4 Balloon inflated with helium or air.....	5
2.5 AWNINGS – CEILINGS – FALSE CEILINGS.....	5
2.5.1 Awnings.....	5
2.5.2 Ceilings and false ceilings.....	5
2.6 FIREPROOFING.....	6
3. EMERGENCY EQUIPMENT .....	6
4. SUSPENDED SIGNS (SIGNAGE, BANNERS, TRUSS) .....	6
5. STAND MADE IN TEMPORARY AND REMOVABLE STRUCTURE .....	7
6. ELECTRICITY .....	8
6.1 ELECTRICAL INSTALLATIONS.....	8
6.2 ELECTRICAL EQUIPMENT .....	8
6.2.1 Electrical cables .....	8
6.2.2 Conductors.....	8
6.2.3 Electrical devices.....	8
6.2.4 Multiple sockets and adaptors .....	8
6.2.5 Halogen lamps (in accordance with EN 60 598).....	9
6.2.6 High voltage illuminated signs.....	9
6.2.7 Equipment with a power greater than 100kVA.....	9
6.2.8 Installations of an autonomous battery to supply the stand with electricity .....	9
7. ENCLOSED STANDS – ROOMS CONSTRUCTED IN THE HALLS .....	9
7.1 ENCLOSED STANDS .....	9
8. LEVELS ABOVE GENERAL FLOOR LEVEL .....	10
8.1 GENERAL .....	10
8.2 EMERGENCY EXITS AND PASSAGES .....	10
8.3 STRAIGHT STAIRS.....	11
8.4 TURNING STAIRS .....	11
8.5 MIXED STAIRS .....	11
8.6 GUARDS AND RAMPS.....	12
8.7 ACCESS TO PERSONS WITH DISABILITIES .....	12

<b>9. MACHINES AND DEVICES SHOWN IN OPERATION .....</b>	<b>12</b>
9.1 EQUIPMENT IN OPERATION PRESENTED IN FIXED STATION .....	13
9.2 EQUIPMENT PRESENTED IN EVOLUTION .....	13
9.3 EQUIPMENT WITH HYDRAULIC CYLINDERS .....	13
9.4 THERMAL OR COMBUSTION ENGINES .....	13
9.5 EXPOSITION DE VEHICULES A MOTEUR THERMIQUE.....	13
9.6 STATIC EXHIBITION OF ELECTRIC VEHICLES.....	13
9.7 EXHIBITION OF HYDROGEN VEHICLES.....	14
9.8 VEHICLES IN DYNAMIC PRESENTATION .....	14
9.9 SOUND SYSTEM ON THE STAND .....	14
<b>10.FLAMMABLE LIQUIDS .....</b>	<b>14</b>
10.1 PRESENTATION OF FLAMMABLE PRODUCTS .....	14
<b>11.PYROTECHNICAL DEVICES AND FIREWORKS .....</b>	<b>14</b>
11.1 COLD SPARK MACHINES .....	15
<b>12.HAZE AND FOG GENERATORS, DRY ICE MACHINE.....</b>	<b>15</b>
12.1 HAZE AND FOG GENERATORS.....	15
12.2 DRY ICE MACHINE.....	15
<b>13.RADIOACTIVE SUBSTANCES – X RAYS.....</b>	<b>15</b>
<b>14.LASERS .....</b>	<b>16</b>
<b>15.HOLDING OR REHEATING DEVICES .....</b>	<b>16</b>
15.1 DEVICES INTENDED FOR CATERING.....	16
15.1.1 <i>Total power less than 20kW</i> .....	16
15.1.2 <i>Total power greater than 20 kW</i> .....	17
15.1.3 <i>Devices intended for demonstrations</i> .....	17
15.1.4 <i>Installations principles</i> .....	17
<b>16.PROHIBITED MATERIALS, PRODUCTS, GAZES .....</b>	<b>17</b>
<b>17.MOTORIZED FLYING MACHINES (DRONES) .....</b>	<b>17</b>
<b>18.OPERATING INSTRUCTIONS .....</b>	<b>18</b>
<b>19.ACCESS FOR THE HANDICAPED .....</b>	<b>18</b>
19.1 ACCESS TO CLOSED ROOMS.....	18
19.2 RECEPTION DESKS, BARS AND BUFFETS .....	18
19.3 RAISED FLOORS .....	18

# FIRE SAFETY PRECAUTIONS

## 1. GENERAL REMARKS

The safety precautions against the risks of fire and panic in establishments open to the public shall be set out in the following texts :

- Order of June 25<sup>th</sup> 1980 amended (general provisions),
- Order of November 18<sup>th</sup> 1987 by the Order of February 3<sup>rd</sup> 2000 giving the specific provisions applicable in exhibition halls.

This document, which is not exhaustive, is a summary of these regulations.

The safety committee is very strict as far as the construction of stands is concerned (stability, construction and decoration materials, electrical installations, etc.). Decision taken by the committee during the visit, which shall take place the day before or on the morning the event opens, shall be implemented immediately.

When the committee makes the inspection, the installations of the stands must be completed. The exhibitor (or his representative) must be present on the stand and must be able to provide fire resistance certificate for all the materials used. No compliance with this rule may lead to the materials being removed or the stand being prohibited from being opened to the public.

Any more proposals must be submitted for the approval of the fire safety officer of the exhibition. Plans and technical information must be submitted for this purpose to the organizer at least one month before the exhibition opens.

During the set up period, the fire safety officer shall monitor the application of the safety measures set out below.

Any further information concerning fire safety, please contact (**Hervé PIERRE Consulting** : M. Alexandre LE GOFF) par E-mail : [alexandre@hervepierre.com](mailto:alexandre@hervepierre.com).

## 2. STAND CONSTRUCTION AND FITTING

The fire classification of materials is subject to the provisions of the Order of November 21<sup>st</sup> 2002, the French standard or the European standard.

**IMPORTANT : in France, only materials with a certificate to reaction fire established are authorized:**

### 1. By a French laboratory, for the "M" classification (M0, M1, M2, M3, M4) :

The certificate to reaction fire must be established by an approved laboratory, list here : <https://www.gtfi.org/professions/laboratoires-agrees/>

The certificate to reaction fire is valid for 5 years, and must be renewed every 5 years to remain valid .

### 2. By an European laboratory, for the Euroclass classification (B-s1-d0 for example) :

The product must have the "CE" marking, under the Construction Product Regulation (RPC)

The certificate to reaction fire must be established by a "notified laboratory", the list of notified laboratories is visible on a database of the European Union, called "EU's Nando"

The CE declarations of performance (DOP) are accepted, if mention is made of the reaction to fire classification.

**Foreign certificate to reaction fire (DIN standard for example) and certificate established by non-notified laboratories are not valid and will not be accepted even if they refer to French or Euroclass standards.**

## 2.1 Euroclass (European Norme)

EUROCLASS IN ACCORDANCE WITH EN 13501-1						
Other than the floor				Floor		
Grade	Smoke Propagation	Flamings Droplets	French Standards	Grade	Smoke Propagation	French Standards
A1	-	-	incombustible	A1 fl	-	incombustible
A2	s1	d0	M0	A2 fl	s1	M0
A2	s1	d1	M1	A2 fl	s2	M3
A2	s2 s3	d0 d1		B fl	s1 s2	
B	s1 s2 s3	d0 d1		C fl		
C	s1 s2 s3	d0 d1	M2	B fl	s1 s2	M4
D	s1 s2 s3	d0 d1	M3 M4 not dripping			

## 2.2 Stand framework, Partitions and Large Furniture

M0, M1, M2 or M3 shall be permitted for the construction of the framework and of the partitioning of stands and for the construction of large items or furniture (cash desk, counter, display cabinets, separating screens, etc.).

### CONVENTIONAL CLASSIFICATION OF WOOD (Order of November 21<sup>st</sup> 2002)

The following materials shall be considered as having the characteristics of category M3 :

- solid no-resinous timber 14 mm thick or more,
- solid resinous timber 18 mm thick or more,
- wood based panels (plywood, blockboard, fibreboard, chipboard) 18 mm thick or more.

**CAUTION :** It shall be strictly forbidden to set any type or fitting out whatsoever over the aisles (structure of signboards, walkways, etc.).

## 2.3 Finishing materials

### 2.3.1 Walls finishes

Wall finishes (natural fabrics or plastic) must be in M0, M1 or M2 materials. They may be stretched or fixed with staples. Sundry finishes (fabrics, paper, plastic film) which are very thin (1 mm maximum) may be used when fixed in a full bed of adhesive to backgrounds of M0, M1, M2 or M3 materials. Embossed or textured paper, however must be fixed in a full bed of adhesive onto M0 materials only.

Materials on display may be shown on the stands without any requirements for fire resistance. However, if these materials are used for decorating the partitions of false ceilings, and if they represent more than 20% of the total area of these elements, the requirements in the above paragraphs shall be applicable to them.

However, these provisions do not apply to specific interior decoration exhibition and stands where textiles and wall coverings are presented. A water fire extinguisher must be installed in the stand concerned.

### 2.3.2 Curtains – Hangings – Net curtains

Curtains, hangings and net curtains may be left loose if they are made with M0, M1 or M2 materials (or made to meet such classification with a fireproofing treatment). They shall however be forbidden on entrances and exits to the stands, but permitted on doors to internal rooms.

### 2.3.3 Paints and Varnishes

Paints and varnishes shall be strictly forbidden if they are deemed to be inflammable (based on nitro-cellulose or alkyls for example).

### 2.3.4 Finishes to floors, podiums, platforms and steps

Floor finishes must be in M4 materials and fixed securely.

Finishes, whether horizontal or not, to podiums, platforms or steps of a height greater than 30 cm and with a total surface area greater than 20 m<sup>2</sup>, must be made from M3 materials. If their total surface area is less than or equal to 20 m<sup>2</sup>, these finishes may be formed from M4 materials.

**CAUTION :** For carpets classified as M3 or M4 laid onto wood, make allowance for the method of fixing. The fire resistance certificates must indicate : "Valid for fixing stretched over any M3 background".

## 2.4 Decorative items

### 2.4.1 Loose laid elements

Elements for decoration or cladding which are not fixed (advertising panels of an area greater than 0,50 m<sup>2</sup>, garlands, lightweight objects for decoration, etc.) shall be constructed from M0 or M1 materials. The use of signs or advertising panels using white letters on a green background shall be strictly forbidden, as the colors are reserved exclusively for indicating exits and emergency exits.

### 2.4.2 Floral decorations

Limited use should be made of floral decorations in synthetic materials. If this is not the case, these decorations must be made from M2 materials. These rules shall not apply to specialized trade fairs and stands where such items are exhibited.

**NOTA :** for real plants, peat soil should preferably be used and kept permanently damp.

### 2.4.3 Furniture

No requirement are required for standard furniture (chair, table, desk, etc.) except for cardboard furniture which must be M1 materials.

On the other hand, display cases, counters, shelves, etc. must be made from M3 materials (or made to meet such classification with a fireproofing treatment).

### 2.4.4 Balloon inflated with helium or air

If your stand includes an advertising balloon inflated with helium or air, the following measures must be applied :

- the balloon envelope must be made of material of fire category M1 or M2 or its equivalent in Euroclass,
- the balloon must be attached to a ballast or a stable element of the stand,
- the inflation/deflation of the balloon must be carried out only outside opening hours to the public,
- the helium bottle must be evacuated and not stored inside the exhibition area during opening to the public.

## 2.5 Awnings – Ceilings – False Ceilings

### 2.5.1 Awnings

Awnings will be permitted under the following conditions :

- in establishments protected by an automatic water-based fire extinction system, awnings must be in M0, M1 or M2 materials,
- in establishments not protected by an automatic water-based fire extinction system, they must be in M0 or M1 materials.

They must also be provided with an effective fixing system to prevent them from falling and must be supported by a wire mesh network so as to form meshes of a maximum of 1m<sup>2</sup>.

In all cases, the hanging system and the fixing of ceilings and false ceilings must be in M0 materials. When insulating materials are fixed in voids in ceilings and false ceilings, they must be in M1 materials.

### 2.5.2 Ceilings and false ceilings

Ceilings and false ceilings must be in M0 or M1 materials. However, it is acceptable for 25 % of the total surface area of these ceilings and false ceilings to be in M2 materials. Light fittings and their accessories shall be included in this percentage; On the other hand, if the ceilings and false ceilings made up of open-worked or net materials, they may be M2 when the area of the solid parts is less than 50 % of the total surface area of these ceilings and false ceilings.

## 2.6 Fireproofing

A guarantee of the category of fire resistance of the materials used in the exhibition halls must be provided at the request of the Safety Officer, in the form of labels of quality, official reports or certificates. Finishes and materials that comply with the safety requirements are available from specialized vendors who must provide the certificates showing the fire classification of the material. For a list of the vendors, contact : GROUPEMENT NON FEU, 37-39, rue de Neuilly, BP 249, 92113 CLICHY (Tél. : +33 (0) 1.47.56.30.81).

Fireproofing may provide an M2 classification to materials which are normally fairly inflammable or easily inflammable. This can be done by spraying a special liquid, by applying a paint or special varnish with a paintbrush, or by soaking in a special bath. Fire protection treatment work can either be carried out by the decorators, who must be capable of providing all information on the treatment of the material, or by an approved contractor, who shall provide the exhibitor with a certificate of an approved type on which shall be shown: the nature, the surface area and the color of the finish treated, the product used, the date of the operation, the stamp and the signature of the operator. Details of approved contractors may be obtained from GROUPEMENT TECHNIQUE FRANCAIS DE L'IGNIFUGATION, 10, rue du Débarcadère, 75017 PARIS (Tél : +33(0) 1.40.55.13.13).

## 3. EMERGENCY EQUIPMENT

If there is safety equipment on the surface contractually made available to the exhibitor, it must remain visible and accessible at all times.

In particular:

- armed fire hydrants (RIA),
- fire extinguishers,
- manual alarm or security intercom triggers,
- various controls (smoke extraction for example).

A 1-meter passage around the device must be left free of any equipment up to the public circulation aisle. The presence of panels or fabrics to hide the equipment **is prohibited**.

## 4. SUSPENDED SIGNS (SIGNAGE, BANNERS, TRUSS)

Temporary installations suspended from the site's attachment points by slings may only be carried out after transmission of the plans and calculation notes produced by an independent approved inspection office to VIPARIS SAS, which may require the installation of additional attachment points if the calculation notes demonstrate this.

**NB:** a sling cannot support more than 80kg.

If your stand includes a sign or a suspension bridge, the following rules apply, with reference to the decree of July 25<sup>th</sup> 2022 setting the safety rules and technical provisions applicable to temporary and removable structures, depending on the height of the attachment point.

The suspended structures installed on the stands will be classified :

- as stage equipment frames of category OS1, if the highest point is less than 3,50m including wedging,
- as stage equipment frames of category OS2, if the highest point is equal to or greater than 3,50m and less than 6,20m, including wedging,
- as stage equipment frames of category OS3, if the highest point is equal to or greater than 6,20m including wedging.

**NB:** the sizing of structures of the removable structures of categories OS2 and OS3 is the subject of a calculation note approved by an engineer specialized in structures, and the audit report on the technical design file must be submitted to the fire safety officer before the beginning of set-up.

Special repetitive fixing systems supporting removable assemblies such as truss, gantries, ceilings and awnings, and special non-repetitive fixing systems must be controlled by an inspection office or by a competent technician according to the following table :

Installations	Classification	Controller	
		Inspection Office	Competent Technician (Declaration)
Truss, sound, Ceiling / Awning Sign	OS1		X
	OS2		X
	OS3	X	
Non-repetitive fastening system regardless of the weight or height	Regardless of the height or weight	X	

**NB:** “Special non-repetitive fastening systems” means a “home-made”, non-industrialized fastening system, holding stand equipment frames that provide support for the decorations, ceilings, walls, lighting, sound, screens, video, advertising and signage supports.

Verifications are carried out once the suspended elements have been installed.

The declaration of proper assembly or the report from the inspection office must be given to the fire safety officer before opening to the public.

If an exhibitor has two or more islands, it is strictly forbidden to place a sign, portcullis or truss crossing an aisle belonging to the organizer, unless agreed by the organizer and the fire safety officer of the exhibition.

## 5. STAND MADE IN TEMPORARY AND REMOVABLE STRUCTURE

If your stand is made in a temporary and removable structure (prolyte structure for example), the following rules apply, with reference to the decree of July 25<sup>th</sup> 2022, setting the safety rules and technical provisions applicable to temporary and removable structures.

Self-supporting structures installed on the stands will be classified:

- as stage equipment frames of category OS1 if the highest point is less than 3,50 meters including wedging,
- as stage equipment frames of category OS2 if the highest point is between 3,50 meters and 6,20 meters including wedging,
- as stage equipment frames of category OS3 if the highest point is greater than 6,20 meters including wedging.

The platforms installed on the stands will be classified :

- as frames intended to receive persons in category OP1 whose highest point is less than 1,20 meter including wedging,
- as frames intended to receive persons in category OP2 whose highest point is greater than 1,20 meter and less than 2 meters including wedging,
- as frames intended to receive persons in category OP3 whose highest point is greater than 2 meters including wedging.

**The sizing of structures of the removable structures of categories OS2 and OS3 is the subject of a calculation note approved by an engineer specialized in structures, and the audit report on the technical design file must be submitted to the fire safety officer before the beginning of set-up.**



Self-supporting structures must be controlled by an inspection office or by a competent technician according to the following table:

Height of the structure	Controller	
	Inspection Office	Competent Technician (Declaration)
Less than 3,50 m		X
> or = 3,50m and < 6,20m		X
> or = 6,20m	X	

Height of the platforms	Controller	
	Inspection Office	Competent Technician (Declaration)
Less than 1,20 m		X
> or = 1,20m and < 2 m	X	
> or = 2 m	X	

**NB:** Verifications are carried out once the elements are installed.

The declaration of proper assembly or the report from the inspection office must be given to the fire safety officer before opening to the public.



**Temporary electrical installations relating to removable assemblies, the power of which exceeds 36kVA, must be subject to inspection by an approved organization.**

## 6. ELECTRICITY

### 6.1 Electrical installations

The electrical installations on each stand must be protected, from its entry to the stand, against overloading and against earthing faults. All metalworks must be interconnected and linked to the earth connection of the stand's electricity control panel.

Electrical connections must be made inside connecting boxes.

The electrical cut-off devices must be permanently accessible to the staff on the stand and the electrician on duty.

### 6.2 Electrical equipment

#### 6.2.1 Electrical cables

Electrical cables must be insulated for a minimum voltage of 500 volts, which prohibits in particular the H-03-VHH cable (scindex). Only use cables where each conductor has its own protective sheath, with all conductors housed in a single protective sheath.


#### 6.2.2 Conductors

The use of conductors with a section of less than 1,5 mm<sup>2</sup> is prohibited.

#### 6.2.3 Electrical devices

Electrical devices of category 0 <sup>(1)</sup> must be protected by differential current devices operating at no more than 30 MA.

Electrical devices of category I <sup>(1)</sup> must be connected to the earth conductor of the cable supplying them.

Of the devices in category II <sup>(1)</sup>, those marked  are recommended.

#### 6.2.4 Multiple sockets and adaptors

Multiple sockets and adaptors are prohibited. Only connecting boxes shall be permitted.

(1) IN ACCORDANCE WITH NF C20-030.



### 6.2.5 Halogen lamps (in accordance with EN 60 598)

Light fittings on stands which have halogen lamps shall:

- be fixed at a minimum height of 2,25 meters,
- be kept away from any inflammable materials (at least 0,50 meters from timber and other decorative materials),
- be fixed securely,
- be fitted with a safety screen (glass or fine mesh) to provide protection from a possible explosion of the lamp.

### 6.2.6 High voltage illuminated signs

High voltage illuminated signs positioned with reach of the public or staff working on the stand must be protected, particularly the electrodes, by a screen made of a material in category M3 at least. The switch to turn them off shall be indicated and the transformers shall be placed in a position that cannot cause any danger to people. Their presence may be indicated with a sign reading "Danger, haute tension" (Danger, high voltage).

### 6.2.7 Equipment with a power greater than 100kVA

If the stand has a control box or a set of control box with a power greater than 100kVA, the following measures apply :

- the electrical box must be located in an enclosed room dedicated to this sole use, made of M3 wooden partitions,
- the room must have electrical risk signage at the entrance to the room,
- install a 2kg CO<sub>2</sub> fire extinguisher at the entrance to the room,
- it must be not located under a mezzanine accessible to the public.

If the stand has a control box with a power greater than 100kVA, a plan and instructions for insulating the electrical box or technical room must be sent to Parc des Expositions and fire safety officer for validation.

### 6.2.8 Installations of an autonomous battery to supply the stand with electricity

The use of battery-type energy storage units (lead battery, lithium-ion, NCM, redox-flow, sodium-sulfur, Zebra, etc.) to supply a stand with electricity is prohibited in exhibition pavilions.

The equipment presented in exhibition is not affected by this provision (refer to chapter 9).

## 7. ENCLOSED STANDS – ROOMS CONSTRUCTED IN THE HALLS

### 7.1 Enclosed stands

Exhibitions sometimes prefer to isolate themselves within enclosed stands. These stands must have exits directly onto the public aisles. The number of exits and their width shall depend on the surface area of the stand, namely :

- less than 20 m<sup>2</sup> : 1 exit 0,90 m wide,
- from 20 to 50 m<sup>2</sup> : 2 exits, one 0,90 m wide, the other 0,60 m wide,
- from 51 to 100 m<sup>2</sup> : either 2 exits 0,90 m wide, or 2 exits, one 1,40 m wide, other 0,60 m wide,
- from 101 to 200 m<sup>2</sup> : either 2 exits, one 1,40 m wide, other 0,90 m wide, or 3 exits 0,90 m wide
- from 201 to 300 m<sup>2</sup> : 2 exits 1,40 m wide
- from 301 to 400 m<sup>2</sup> : 2 exits, one 1,80 m wide, the other 1,40 m wide.

The exits must be carefully positioned and, if possible, be opposite each other. Only doors or sets of doors with their outer frames at least 5 meters away from each other shall be included in the number of exits or units of passage.

Each exit must be marked « Sortie » in white letters clearly visible on a green background. If the openings are closed by doors, these must open in the exit direction, without a locking system and without projecting into the public aisles.

## 8. LEVELS ABOVE GENERAL FLOOR LEVEL

### 8.1 General

According to the NF P 06-001, upper-level arrangements must be strong enough to withstand an overload:

- storey of less than 5 sqm: 250kg per sqm,
- storey of 50 sqm and more: to 350kg per sqm.

Upper levels must not be covered.

**CAUTION:** a certificate from an approved organization must attest the stability of these stands with raised levels, the method for calculating weights or resistance certification must be compulsorily submitted to the Safety Manager of the exhibition during the assembly period, before the public opening.

An approved organization must verify the stability on site before the exhibition opens. Piercing resistance must not be greater than what is allowed in the exhibition hall.

Each stand can have only one upper level.

The surface of the raised level should be less than 300 sqm.

Each stand must be equipped with fire extinguishing, namely :

- a water spray extinguisher, placed at the bottom of each staircase,
- a CO2 extinguisher type 2 kg near the electrical panel.

If the surface of the upper level is greater than 50sqm, the appropriate supplemental fire suppression means must be manned by at least one security officer during public attendance at the exhibition.

### 8.2 Emergency exits and passages

Raised levels must be served by evenly distributed stairs, the number and width depend on the size of these levels, namely :

- up to 19 sqm : one stairway ( 0,90m wide),
- from 20 to 50 sqm : 2 stairways : one with a width of 0,90 m and the other of 0,60 m),
- from 51 to 100 sqm: 2 stairways of 0,90 m, or 2 stairways (one 1,40 m wide and the other 0,60 m wide),
- from 101 to 200 sqm : 2 stairways (one 1,40 m wide and another with a width of 0,90 m wide),
- from 201 o 300 sqm : 2 stairways of 1,40 m wide.

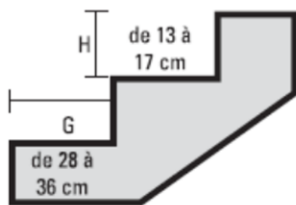
Only stairs separated by at least 5 meters will be considered.

Exits must be marked with an "Exit" sign in clearly visible white letters on a green background.

### 8.3 Straight stairs

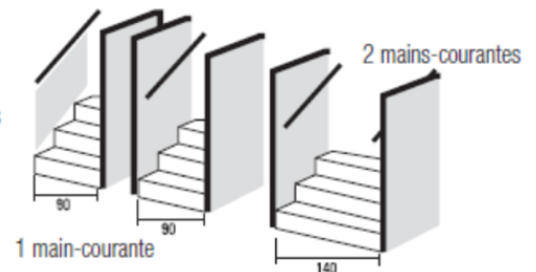
Straight staircases intended for public circulation must be built so that the steps comply with the rules of the art and that the flights have 25 steps at most. As far as possible, the directions of the flights must be opposite. The height of the steps must be at least 13cm and at most 16cm, their width must be at least 28cm and at most 36cm. The height and width of the steps are linked by the relationship  $60\text{cm} < 2H + G < 64\text{cm}$ .

These heights and widths must be regular in the same flight, however this requirement is not required for the first step. The landings must have a width equal to that of the stairs; in the case of unopposed flights, their length must be greater than one meter. Stairs with a width equal to at least one passage unit must be equipped with a handrail (1 PU = 0.90m). Those with a width of two passage units or more must have a handrail on each side.



**Les marches :**  
de 3 à 25 marches maximum sans palier  
 $2H + 1G = \text{de } 60 \text{ à } 64 \text{ cm}$

**Escaliers :**  
Largeurs et  
mains-courantes

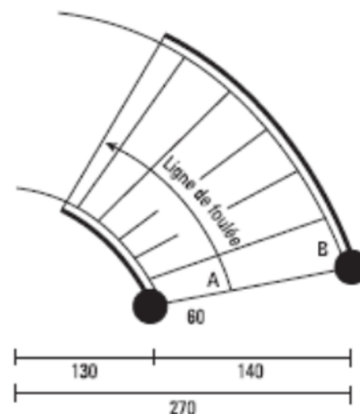
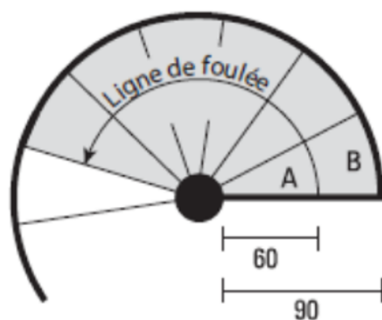


### 8.4 Turning stairs

Normal or additional spiral staircases must have continuous swing, with no landing other than those serving the floors. The tread and height of the steps on the tread line, 60 cm from the core or central void, must comply with the rules of the art referred to in the previous article.

In addition, the external tread of the steps must be less than 42cm.

For staircases with a single passage unit, the handrail must be located on the outside.



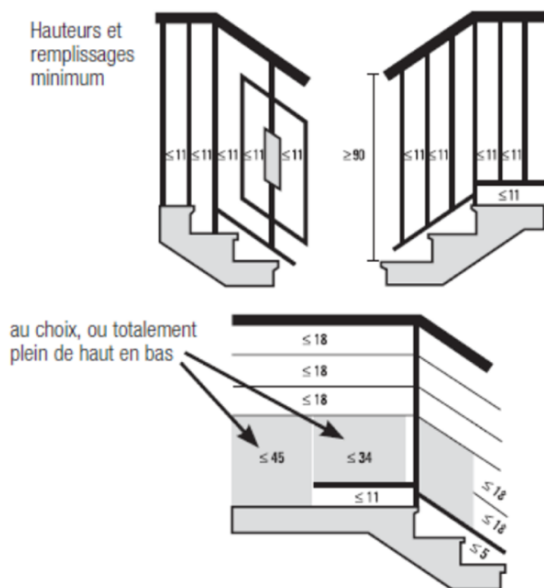
### 8.5 Mixed stairs

To the extent that a staircase complies in its various straight and turning parts with the rules of the art defined in paragraphs 5.3 and 5.4 above, this staircase is considered to comply with the regulations, nothing prevents its use in establishments receiving the public.

## 8.6 Guards and ramps

According to standards NF P 01-012 et NF P 01-013, guardrails must withstand a pressure of 100 kg per linear meter.

The glass panels used as protection must be reinforced or laminated. The “Security” glass is prohibited.



Rapport hauteur/épaisseur (en cm) :

Garde-corps minces

Garde-corps épais

Epaisseur	Hauteur
≤20	100
25	97,5
30	95
35	92,5
43	90
45	85
50	80
55	75
60 et +	70

## 8.7 Access to persons with disabilities

2 storey stands, receiving less than 50 people per floor, will offer an equivalent service at ground floor.

Other decker stands will have a handicap accessible elevator complies with the standard NF EN 81-70 and checked by an authorized company before commissioning.

Access to the upper level stairs meet the following requirements:

- a minimum width of 1,20 meter will be carried out between the handrails,
- the maximum step height is 17 cm with a minimum tread of 28 cm,
- the step nosing must have a contrasting color,
- a podotactile strip at the top of the stairs, will awaken the vigilance and will be placed at a distance of 50 cm from the first step,
- the handrail will start 10 cm before the first step, at the top and bottom of the staircase.

## 9. MACHINES AND DEVICES SHOWN IN OPERATION

Each machine presented in operation within the confines of a show must be the subject of a prior declaration, sent to the Organizer no later than one month before the opening of the event. Only installations that have been declared may be authorized. All equipment must be properly stabilized to avoid any risk of overturning.

All protective measures must be carried out in full during the passage of the Security Commission.

A responsible person must be present on the stand during the visit.

No machine may be started or presented in working order without the presence on the stand of a qualified person. All presentations and demonstrations are carried out under the full responsibility of the exhibitor (Art. T39§2).

The supply of electrical energy will be entirely suspended at the expense of the exhibitor concerned, on any stand on which the machine in operation present dangers for the public and for which no measures has been taken to eliminate them.

### 9.1 Equipment in operation presented in fixed station

Equipment presented in operation at fixed station must either include screens of fixed and well-suited casings, putting any dangerous part out of reach of the public, or be arranged in such a way that the dangerous parts are kept out of reach of the public and, at any time, at a distance of one meter from the traffic aisles.

### 9.2 Equipment presented in evolution

When equipment is presented in evolution, a protected area must be reserved so that the public cannot approach it within one meter, this distance being able to be increased considering the characteristics of the equipment presented. These provisions are valid for all stands, including those in the open air.

### 9.3 Equipment with hydraulic cylinders

If equipment with hydraulic cylinders is exposed in a high static position, the hydraulic safety devices must be supplemented by a mechanical device preventing any untimely folding back.

### 9.4 Thermal or combustion engines

The use of thermal or combustion engines must be the subject of a request for authorization sent to Organizer at least 30 days before the opening of event. This request, which must be attached to the declaration form for the machine or device in operation, must specify the nature and daily quantity of the fuel used, and a layout plan of the device on the stand. No device of this type can be put into service if the request for authorization has not been in great time.

**CAUTION:** In all cases, the combustion gases must be evacuated outside the halls.

### 9.5 Exposition de véhicules à moteur thermique

Each vehicle presented within the confines of a show must be the subject of a prior declaration, sent to the organizer no later than one month before the opening.

To this declaration, you must attach the technical files of the vehicle. Depending on the weight of the vehicle, distribution plates may be imposed.

- the tanks of engines presented at a stand still must be emptied or fitted with keys caps,
- the terminals of the accumulator batteries must be protected so as to be inaccessible.

### 9.6 Static exhibition of electric vehicles

Each vehicle presented within the premises of a trade fair(exhibition) must be the subject of a prior declaration, addressed to the organizer at the latest one month before the opening of the event. To this declaration, you must attach the technical sheet of the vehicle. Depending on the weight of the vehicle, distribution plates may be required.

- the terminals of the accumulator batteries will be protected so as to be inaccessible, and will be disconnected if necessary to prevent the vehicle from starting,
- the vehicles will be put in “ demonstration “ mode, with operation only of the dashboard equipment.

**NB :** Additional fire extinguisher adapted to the risks will be installed near the vehicles (special fire extinguisher for lithium battery fires).

## 9.7 Exhibition of hydrogen vehicles

The presence of hydrogen is prohibited inside an establishment open to the public, except on the advice of the safety commission.

Any presence of hydrogen on a stand must be the subject of an authorization request sent to the organizer at least 45 days before the opening, in order to be able to compile an authorization request file, which will be forwarded to the safety commission. The following measures must be applied :

- absence of liquid hydrogen in the building,
- absence of storage or reserve bottles,
- provide a hydrogen detector in the exhibition on the stands with gaseous hydrogen and the stand must be equipped with a silent alarm (LED or other),
- provide a 6-liter water spray extinguisher with additive.

If hydrogen is used in the stand, you must declare to the organizer:

- the description of the use,
- the type of equipment in question,
- all exhibition vehicles must have their tank empty of all gas.

## 9.8 Vehicles in dynamic presentation

Demonstrations of moving vehicles are strictly prohibited on the exhibitor's stand.

If demonstrations of moving vehicles are planned by the organizer, they will be carried out in a dedicated and secure area, in agreement with the fire safety officer.

## 9.9 Sound system on the stand

If there is a sound system on the stand, the music limit of 50 decibels must be respected.

In the event of non-compliance, the power supply to the stand will be cut off.

# 10. FLAMMABLE LIQUIDS

Any presence of flammable liquids on a stand must be subject to a request for authorization sent to the Organizer at least 30 days before the opening of the event. This request must specify the nature and quantity of liquids present on the stand.

The use of flammable liquids per stand is limited to the following quantities :

- 10 liters of 2nd category inflammable liquids for 10 m<sup>2</sup> of stand, with a maximum of 80 liters,
- 5 liters of 1st category flammable liquids,
- The use of particularly flammable liquids (carbon sulphide, ethyl oxide, etc.) is prohibited.

The following precautions should be taken :

- place under the cans or the tank a receptacle that can contain all the fuel,
- recharge the device away from the presence of the public,
- have extinguisher suitable for the risks nearby.

## 10.1 Presentation of flammable products

All containers of flammable liquids presented on the stands (cans of paint, varnish, bottles, aerosol cans, etc.) must be empty with the exception of a few samples in limited quantities used for demonstrations.

# 11. PYROTECHNICAL DEVICES AND FIREWORKS

Pyrotechnic effects generating sound explosions, sparks and flames are strictly prohibited on the stands.

Any other equivalent device must be the subject of a request for authorization sent to the Organizer at least 30 days before the opening of the event. This request must be accompanied by a technical manual for the device and a layout plan for the device on the stand or stage.

### 11.1 Cold spark machines

The use of cold spark jet effect devices is subject to authorization from the fire safety officer, and must be sent to the organizer at least 30 days before the opening of the event. This request must be accompanied by a technical manual for the device and a plan of the device's location on the stand or stage.

The use of these devices must be carried out in compliance with the safety rules indicated in the technical sheet, in particular concerning the safety distances to be respected.

## 12. HAZE AND FOG GENERATORS, DRY ICE MACHINE

### 12.1 Haze and fog generators

The use of haze generators to create for or light effects is subject to authorization.

The haze machine must comply with the low voltage directive 95/CE. This conformity is attested by the CE marking affixed to the device.

This request which must be attached to the declaration form for the machine or device in operation, must be accompanied by a technical manual for the device and an installation plan for the device on the stand or stage. No device of this type may be put into service if the authorization request has not been made in good time.

### 12.2 Dry ice machine

The use of dry ice machine is subject to authorization. This request, which must be attached to the declaration form for the machine or device in operation, must be accompanied by a technical manual for the device and layout plan for the device on the stand or stage.

No device of this type can be put into service if the request for authorization has not been made in great time.

The dry ice machine must comply with the low voltage directive 95 / CE. This compliance is attested by the CE marking on the device.

The dry ice machine must be fitted with a device to interrupt its operation.

If several dry ice machines are used, a centralized device allows the simultaneous stopping of all the machines. This device is easily accessible and identifiable.

The exhibitor ensures that the ventilation is carried out and monitored in such a way as to effectively oppose the stagnation of harmful gases.

The dry ice generated within the framework of this demonstration, will not pollute the visibility of the luminous hearths of the lighting of evacuation.

## 13. RADIOACTIVE SUBSTANCES – X RAYS

Any presentation of equipment using radioactive substances or substances that generate X-Rays must be the subject of an authorization request sent by the exhibitor to the competent administration.

Authorization to present radioactive substances in stands can only be granted for demonstrations of devices when the activities of these substances are less than :

- 37 kilos becquerels (1 microcurie) for those consisting of or containing group I (1) radioelements,
- 370 kilos becquerels (10 microcurie) for those consisting of or containing group II radioelements,
- 3700 kilos becquerels (100 microcurie) for those consisting of or containing group III radioelements.

Any use of radioactive substances must be the subject of a request for authorization sent to the Organizer at least 60 days before the opening of the event. This request must be accompanied by a technical manual for device, with indications for protection against radioactive substances, and a layout plan for the device in the stand.

Authorization to present X-Ray emitting devices on stands can only be granted if they comply, as well as the accessories, with the rules set by Standard NF C 74-100.



In particular, the following provisions must be made :

- remoteness of superfluous objects in the vicinity of the X-Ray generator and the sample to be examined,
- materialization and signage of the area not accessible to public,
- the leakage radiation exposure rate must not exceed 0,258 microcoulombs per kilogram per hour (1 milliroentgen per hour) at a distance of 0,10 meters from the X-Ray source.

## 14. LASERS

Only 1 and 2 lasers classes are allowed inside an establishment.

Class 3 and 4 devices are strictly prohibited.

Any use of lasers must be the subject of request for authorization sent to the Organizer at least 30 days before the opening. This request must be accompanied by a technical manual for the device and a layout plan for the device on the stand or stage, as well as a description of the activity.

The following measures should be considered when preparing the request :

- public must under no circumstances be subjected to the direct or reflected beam of the laser,
- the device and its ancillary equipment must be firmly fixed to stable elements,
- environment of the device and the space scanned by the beam must not contain any reflective elements at the wavelengths considered,
- exhibitors must ensure, during tests carried out outside the presence of the public, that the fittings, decoration, and fire protection equipment don't react to the calorific energy transferred by the light beams.

**IMPORTANT:** Machines and devices with lasers under casing (cutting, reading, measuring, etc.) presented in demonstration, for exhibition purposes are authorized without agreement from the administrative authority. However, the declaration must be made to the organizer 30 days before the opening of the event.

## 15. HOLDING OR REHEATING DEVICES

Each stand can only have one holding or reheating point. In addition, two kitchens installed on two different stands must be at least 3 meters apart.

All stands containing cooking or reheating devices must imperatively be the subject of a declaration form to be sent to the fire safety officer no later than 30 days before the opening of the event.

### 15.1 Devices intended for catering

#### 15.1.1 Total power less than 20kW

Si la puissance totale des appareils de maintien ou de remise en température est inférieure à 20 kW, les mesures suivantes doivent être observées :

- the floor or table supporting the cooking devices must be made of non-combustible materials or covered with M0 material.
- Cooking devices must be kept a suitable distance from any combustible material and be installed in such a way as to prevent any fire hazard. At counter level, these devices must be set back from the public or provide a protective plate of Plexiglas type,
- If these devices are located near a partition, a M0 coating must be provided over a height of one meter above the device.
- 3-filters hoods must be installed above devices giving off fumes or mist,
- Electricity meters must be at least one meter away from water point,
- Each development must :
  - ✓ be provided with safety instructions (what to do in the event of fire, how to call firefighters, etc.)
  - ✓ be equipped with one or more fire extinguishers.

### 15.1.2 Total power greater than 20 kW

If their total power is greater than 20kW, the cooking and reheating devices must be installed in specialized modules or containers with the following characteristics:

- interior walls are fireproof for 1 hour and any coatings are made of materials classified M0,
- each module or specialized container must include:
  - ✓ mechanical extraction of stale air, mist and grease leading outside the building,
  - ✓ the duct must be made of M0 material and must be equipped with a 1-hour fire damper placed in line with the wall of the module or container,
  - ✓ an automatic fire extinguisher and easily accessible CO2 fire extinguisher,
  - ✓ an emergency shutdown device for its energy supply. This device must be located outside, near the access door, easily accessible, well marked and out of reach of the public.
  - ✓ if there are side openings, they must have 1-hour fire resistant closing system, the closing device of which must be self-controlled or remote-controlled by the automatic container extraction device.
- only electrical energy is authorized to supply equipment for cooking or reheating.

### 15.1.3 Devices intended for demonstrations

Cooking and reheating devices used exclusively for demonstrations of operation (in specialist trade fairs, for example) must be the subject of a specific authorization request to be sent by the exhibitor to the charge of security at the latest one month before the opening of the event.

This request must be accompanied by a side plan specifying the location, nature, and power of each device.

The study of each file will make it possible to fix, for each stand, the applicable safety rules.

No device of this type can be put into operation if the request has not been made in great time.

### 15.1.4 Installations principles

The devices must be 1 meter away from any public or have a protective screen to prevent any public from receiving projections or being able to reach the device.

## 16. PROHIBITED MATERIALS, PRODUCTS, GAZES

Cylinders of air, nitrogen and carbon dioxide are authorized without restriction.

the following are prohibited in the exhibition halls ( in accordance with article T45 of the safety regulations) :

- the distribution of samples or products containing a flammable gas,
- balloons inflated with flammable or toxic gas,
- -elluloid items,
- the presence of pyrotechnics or explosives,
- the presence of diethyl ether, hydrogen or a gas presenting the same risks is prohibited, unless special dispensation has been granted by the competent administrative authority (Prefecture, Safety Commission).

**CAUTION :** No storage of empty or full bottles is tolerated inside the halls.

## 17. MOTORIZED FLYING MACHINES (DRONES)

In accordance with the decree of the police prefecture n° 97.11628 of September 9, 1997, the use of any motorized flying machine or radio remote control is prohibited inside an public access building (ERP).

The exhibitor assumes full responsibility for the presentations and demonstrations carried out on its stand. It takes all necessary measures to ensure the safety of the public admitted there. As such, drone flight may be authorized if the latter evolves in an enclosure of the “drone cage” type.

The use of drones inside a “drone cage” must be the subject of an authorization request sent to the organizer at least 30 days before the opening of the event. This request, which must be attached to the declaration form of the machine or device in operation, must specify the type of drone used, and be accompanied by a technical manual for the device.

## 18. OPERATING INSTRUCTIONS

It shall be forbidden to stock cases, wood, straw, cardboard, etc. in the exhibition halls, on the stands or in the aisles.

Regular cleaning (daily) shall be carried out in order to clear the premises of dust and rubbish of all kinds. All refuse arising from the cleaning and sweeping must be removed each day, outside public opening hours, and taken outside the establishment.

## 19. ACCESS FOR THE HANDICAPED

The exhibitor must ensure that the requirements of the decree of April 20<sup>th</sup> 2017, relating to accessibility for persons with disabilities are applied.

### 19.1 Access to closed rooms

The access doors have no leaves lower than 0,90m.

### 19.2 Reception desks, Bars and buffets

They will be equipped with an usable shelf less than 0,80m with a void at the bottom of at least 0,30m deep 0,60m wide and 0,70m high allowing the passage of the feet and knees of a person in a wheelchair.



### 19.3 Raised floors

Any stand with a floor height equal or greater than 2cm will be equipped with a disabled access ramp included in the surface of the stand.

Stands with a floor height between 2 and 4cm will be equipped with a device of chamfered corners around the entire perimeter of the stand.

Stands with a floor greater than 4cm will include access ramps respecting the following values :

- 5% on 10 meters,
- 8% on 2 meters,
- 10% on 50 cm,
- 33% for 4 cm high.



## ANNEX

ANNEX I : Declaration form of machine or equipment in operation

ANNEX II : Declaration form of use cooking or tempering material

ANNEX III : Declaration form of installation of machines with thermal or combustion engines  
vehicles

ANNEX IV : Declaration form of proper assembly of suspended signs on stands and  
removable structures (OP/OS)

ANNEX V : Declaration form of proper assembly (stands)

# ANNEX I : DECLARATION FORM OF MACHINE OR EQUIPMENT IN OPERATION

**This form must be submitted to the organizer no later than 30 days before the opening of the event**

## Company

Event :

Corporate name of company making the presentation :

Address :

ZIP Code :

City :

Name of responsible :

Phone Number :

E-mail :

## Material

Type of equipment or device presented in operation :

### **Specific risks :**

Source of electrical energy than 100 KWA :

Liquid gas :

Flammable liquids (other than those in motor vehicle tanks) :

Type of liquid :

Quantity :

Utilization method :

**Risks requiring a request for authorization sent by the person in charge to the competent administration :**

Thermal or combustion engine :

Haze and fog generator :

Propane gas :

Other dangerous gas :

Specify :

Radioactive source :

X-Rays :

Laser :

Other cases not foreseen :

Specify :

Competent administrative authority :

Date of sending the file :

**Important :** The equipment presented in operation must include screens or casings fixed and well adapted, putting out of reach of the public any dangerous part, or be arranged in such a way that the dangerous parts are kept out of reach of the public, and at all least at a distance of one meter from general traffic. The demonstrations are carried out under the full responsibility of the exhibitor.

**Date and Place**

**Signature**

## ANNEX II : DECLARATION FORM OF USE COOKING OR TEMPERING MATERIAL

To be given to the organizer for validation by the fire safety officer

### Company

Name and number of the stand :

Name of the stand responsible :

Company :

Address :

ZIP Code :

City :

Phone Number :

E-mail :

### Equipment used :

Device	Quantity	Power per device		Total Power	
Hotplates			kW		kW
Water Bath			kW		kW
			kW		kW
			kW		kW
			kW		kW
			kW		kW
			kW		kW
			kW		kW
			kW		kW
			kW		kW
Total Power					kW

Date and Place

Signature

# ANNEX III : DECLARATION FORM OF INSTALLATION OF MACHINES WITH THERMAL OR COMBUSTION ENGINES VEHICLES

To be given to the organizer for validation by the fire safety officer

## Company

Name and number of the stand :

Name of the stand responsible :

Company :

Address :

ZIP Code :

City :

Phone Number :

E-mail :

## Vehicles used :

I undertake, in accordance with Article T41 of the fire and panic safety regulations in establishments open to the public (Order of June 25<sup>th</sup> 1980 amended), to install a vehicle on display on the stand designated above as following :

☐ Thermal or combustion vehicles :

- the tank is empty **or** fitted with a lockable cap,
- the battery terminals are protected so as to be inaccessible **or** unplugged,
- the vehicle is shown stationary.

☐ Electric vehicles :

- the battery must MANDATORY be deactivated by a circuit breaker (also called a battery switch),
- provide a special lithium or CO<sup>2</sup> type fire extinguisher near vehicles.

☐ Hydrogen vehicles :

- the tanks must be COMPLETELY emptied of hydrogen.

VEHICLES TYPE	BRAND	REGISTRATION

Date and Place

Signature



# ANNEX IV : DECLARATION FORM OF PROPER ASSEMBLY OF SUSPENDED SIGNS ON STANDS AND REMOVABLE STRUCTURES (OP/OS)

Produced according to the model of Annex V of the decree of July 25<sup>th</sup> 2022, establishing the safety rules and technical provisions applicable to temporary and removable structures.

(Article 38)

## One declaration for several identical removable assemblies

### Event

Name of the Event :

Name and number of stand and name's responsible :

Address :

Dates :

### Company in charge of installation

Name :

Address :

E-mail :

Phone Number :

Name of the installation responsible :

Phone Number :

Job in company :

### Characteristic of the removable assembly

Made by :

Brief description and marking(s) :

Documents and plans used for installation : references, dates, indices, etc. :

**GROUND CONNECTION** <sup>(1)</sup> : anchoring – hauling – ballast – self-supporting

**RETAINED WIND SPEED** (km/h) : /

**SECURING SUSPENDED TECHNICAL EQUIPMENT** <sup>(1)</sup> :

carried out in accordance with the provisions of Article 26 :

not applicable or otherwise to be specified :

**I, the undersigned (Name, First Name and job in company) :** \_\_\_\_\_

Certify that I have assembled the removable assembly(s) in accordance with :

- to the graphics files,
- to the technical notice and the manufacturer's plans <sup>(1)</sup>,
- to the conclusion of the calculation note <sup>(1)</sup>,
- the opinion on the standard model or on the technical file <sup>(1)</sup>,
- to the order setting the safety rules and the technical provisions applicable to temporary and removable structures.

**Date and Place**

Made in two original copies

**Signature**

(1) Strike out what does not apply

## ANNEX V : DECLARATION FORM OF PROPER ASSEMBLY

**Name of the exhibition :**

**Name of stand :**

**Number of stand :**

I, the undersigned \_\_\_\_\_, representing the company \_\_\_\_\_ and acting as :

☐ assembly manager,

☐ decorator,

☐ prime contractor.

certify on my honor :

☐ the stand present in the exhibition was set up to ensure the safety of the public, in compliance with the standards in force in establishments open to the public in France, according to the provisions of the specifications of Paris Expo Porte de Versailles, to the rules of the art and the recommendations of the manufacturer.

☐ The metal gantries and/or the suspended grills intended for the light effects supports or supports of any other nature have been mounted in the rules of the art and according to the manufacturer data in order to ensure the safety of the public.

**This certificate is issued for all legal purposes**

**Date and Place**

**Signature**

# EVACUATION GENERAL PROCEDURES

## IN CASE OF FIRE

**Keep Calm !**

**Notify the security office  
Or by phone the organizer or stage manager**



**OPERATE** nearest fire alarm point



**LEAVE** the building by the nearest exit

## IN CASE OF EVACUATION

**If you hear the alarm sign : Keep Calm !**



**LEAVE** in direction to emergency exits marked with light blocks or emergency exit signs



**DON'T RETURN** to the building until authorized to do so



**FOLLOW** the instructions by the safety officer



**REPORT** to your assembly point