



1. General observations

Safety precautions against risks of fire and resulting panic in buildings open to the public are laid down in the decree of 25 June 1980 (General regulations). The decree dated 18 November 1987 stipulates the special precautions to be applied in exhibition halls. The following text is made up of extracts from these regulations to make them easier to understand.

The Safety Commission has highly stringent standards concerning the set-up and installation of stands (stability, construction material, decoration, electrical fittings and so on). All decisions taken by this commission during its inspection - which will take place the day before or early in the morning of the opening day - must be acted on immediately. All stand installations must be finished by the time of this inspection visit. The exhibitor or his representative is bound to be present on the stand and should be able to produce all official reports on the fire resistance/reaction of any material used. Infringement of this regulation may result in the removal of the material or the prohibition of the opening of the stand to visitors.

Important projects (> 40,00 m²) are subject to approval by the exhibition's Safety Officer (**Cabinet Watteau**). Plans and technical information have to be forwarded to the organiser at least one month before opening of the exhibition.

During the setting up, the Safety Officer will make sure the safety regulations stated hereafter are respected .All further information regarding fire safety and security may be obtained by contacting the technical security advisor.

CLASSIFICATION OF FIRE RESISTANCE OF MATERIALS (Decree dated 30 June 1983)

Material is classified in 5 categories: M0, M1, M2, M3 and M4. M0 is fireproof material

2. Stand construction and fittings

2.1. Stand framework, partitions and large furniture

All material in categories M0, M1, M2 or M3 (1) is authorized for use in building the stand framework, partitions and large furniture and fittings (case, counter, shelves and display cases, separating screen, and so on).

STANDARD CLASSIFICATION OF WOOD BASED MATERIALS (Decree dated 30 June 1983).

The following materials are deemed to come under the heading of category M3 materials:

- non-resinous solid wood 14 mm thick or more;
- resinous solid wood 18 mm thick or more;
- panels derived from wood (plywood, boarding, particle and fiber woods) 18 mm thick or more.

WARNING: It is strictly forbidden to place any dry equipment whatsoever over the alleyways (structural or identification banner, gangway, etc.).

2.2. Wall coating material

2.2.1. Wall coating

Coating (pure textile fabrics or plastic coatings) must belong to category M0, M1 or M2 (1) and may be applied and fastened by hooks. Different coatings (fabric, paper, plastic films) which are very thin (1 mm maximum), since they are of medium or high inflammability, must be glued using their whole surface area and onto supporting material M0 only.

Equipment on display may be presented on stands without the regulation related to fire safety being adhered to. However, if this exhibited material is used to decorate the partition walls or false ceilings and if they represent more than 20 % of the total surface of such elements, the regulations described in the preceding paragraphs are applicable. However, the regulations do not apply to specialist interior decoration exhibitions or stands where such textiles and coating material are exhibited.

(1) Or subsequently treated to obtain these degrees of inflammability.

2.2.2. Curtains - Hangings - Muslins

Curtains, hangings and muslins may be left hanging loose, if they fall within the categories M0, M1 or M2. However, they may not be used on stand entry or exit doors, but are authorized on doors for use inside stands.

2.2.3. Paints and varnish

The use of glycerol-nitrocellulosic paints and varnishes is strictly forbidden if they are considered to be easily inflammable.

2.2.4. Coating of floors, podiums, platforms, steps

Any such coating must be made of material in an M4 category and solidly fixed. Coatings, horizontal or not, of podiums, platforms and steps which are higher than 0.30 m and with a surface area over 20 sq.m, may be made of materials in category M3. If their total surface area is less than 20 sq.m, the corresponding coatings may be made of materials in category M4.

NOTE: For carpeting classified as M3 or M4 and laid on wood, please take account of the laying method. Fire resistance notices must state "Suitable for stretched laying over any M3 support".

2.3. Decoration items

2.3.1. Suspended elements

Suspended decorative elements or coverings hanging loose (advertising panels with a surface area over 0.50 sq.m, garlands, any light decoration item, etc.) must be made of material in the M0 or M1 category. The use of name board signs or advertising panels written out in white letters on a green background is strictly forbidden, as these colours are reserved exclusively for signs indicating Exit or Emergency Exit gates..

2.3.2. Flower decorations

Limited use should be made of floral decorations made out of synthetic materials. If not, only plants and artificial flowers made out of flame resistant cloth or fabric in category M2 will be authorized. These rules do not apply to specialized exhibitions and stands where such items are exhibited.

NOTE: As regards any real plants, preference should be given to peat soil which should stay permanently moist.

2.3.3. Furniture

There are no special requirements for standard furniture (desks, tables, chairs and so on). But all racks, counters, shelves and so on, must be made of material in an M3 classification.

2.4. Awnings, ceilings and false ceilings

Stands covered by ceilings, false ceiling or an awning, as well as stands with a raised floor level, should have a total covered surface area less than 300 sq.m. If the surface area is over 50 sq.m, the stand should be provided with appropriate fire extinguishers, permanently supervised by at least one person in charge of fire safety during the time the public is present in the building.

2.4.1. Awnings

Awnings will be authorized under the following conditions:

- they must be made of material classified as M0, M1 or M2 (1) inside buildings equipped with an automatic fire extinguishing device using water (2);
- inside buildings without this kind of automatic fire extinguishing device, awnings must be made of cloth classified in category M0 or M1.

They must also be fixed in a solid and effective manner so that they do not fall down, and be supported by a crossed network of steel wire; each grid mesh should be 1 sq.m maximum. The suspension device and fittings of these ceilings and false ceilings must be made of material classified in category M0. When there is a coating of insulating material in these ceilings and false ceilings it must also be made of category M1 material.

2.4.2. Ceilings and false ceilings

Ceilings and false ceilings must be made of material classified in category M0 or M1. It will, however, be accepted that 25 % of the total surface area of these ceilings or false ceilings will be made of material in category M2. Lights and lamps are included within this percentage. If the ceiling or false ceiling is made up of open-worked or net material, the material may be within the M2 category when the unbroken (continuous) surface area is less than 50 % of the ceiling/false ceiling total surface area.

2.5. Fireproofing

The person in charge of show security may ask exhibitors at any time to produce the guarantee of the degree of fire resistance of any material applied on their stands, either with labels of quality, official reports or certificates. All coatings, coverings and material meeting the requirements of security are sold in specialized shops, where the quality certificates for the classification of fire resistance may be obtained.

For details of these shops, please contact GROUPEMENT NON FEU, 37-39, rue de Neuilly, BP 249, 92113 CLICHY - France (tel. 33 01.47.56.30.81).

Using different procedures or applications, any material which normally would be of medium or high inflammability may obtain the M2 fireproofing qualification. These procedures are: inflammable liquid spraying, brush application of a paint or special varnish, or immersion in a special bath solution. These fireproofing operations may be performed by decorators, who must be able to provide full information regarding the treatment of the material or an officially qualified person or contracting company who may issue a sanctioned certificate providing the following specifications: nature, surface and colour or the coating/covering treated, product applied, date of working operation, stamp and signature of the work operator.

Full contact details of officially qualified companies may be obtained from the GROUPEMENT TECHNIQUE FRANCAIS DE L'IGNIFUGATION, 10, rue du Débarcadère 75017 PARIS (Telephone: 33 01.40.55.13.13).

NOTE: Fireproofing operations may only be performed on wood panels or pure fabrics, or on fabrics with a large proportion of pure fibers (impossible on synthetics or plastics). They are impossible on synthetics or plastics.

VERY IMPORTANT: Certificates of foreign origin will not be taken into account. Only official reports from French qualified laboratories will be accepted.

3. Electricity

3.1. Electrical installation

Any electrical equipment or installation on stands should be protected at source from excess and earth fault currents. All metallic masses should be interlinked and also linked to the earth connection of the connection panel on the stand. All current connections should be placed inside shunt boxes. There should be easy access to all disconnection devices at all times.

3.2. Electrical supplies

3.2.1. Electrical cables

Electrical cables should be insulated so that they can support a minimum of 500 volts; this is a voltage that, for instance, the cable H-03-VHHH (scindex) would not support. Only cables with a separate cable covering for each wire conductor should be used; all wire conductors should then have a common protection covering.

3.2.2. Wire conductor

The use of any wire conductor with a section under 1.5 mm² is forbidden.

3.2.3. Electrical equipment

Any electrical equipment classified in category 0 (3) should be protected by a device for nominal decomposed currents equal to a maximum of 30 MA. Electrical equipment classified in category I (3) should be connected to the protection conductor of supply lines. Electrical equipment classified in category II (3) with the sign is recommended.

3.2.4. Multiple plugs

Only socket adapters or multiple cases using a fixed adapter cap (moulded multiple socket assembly) will be authorized.

3.2.5. Halogen lamp (standard EN 60-598)

Stand lighting which incorporates halogen lamps must:

- be placed at a minimum height of 2.25 metres;
- be placed away from all inflammable materials (at least 0.50 metre from wood and other decorative materials);
- be solidly attached;
- be fitted with a safety screen (glass or fine tin mesh grid) providing protection against the consequences of a possible lamp explosion.

3.2.6. High voltage light signs

High voltage light signs which are positioned within the reach of visitors or staff working on the stand should be protected, particularly the electrodes, by means of a screen made of material classified in category M3, as a minimum. The power cutoff should be clearly indicated and all current transformers positioned so that they represent no danger to any passing person. Their presence may be indicated by a warning sign: "DANGER HAUTE TENSION" (Danger high voltage).

(3) As specified by the NF C 20-030 standard.

4. Closed in stands and special requirement rooms

4.1. Stands closed in by partition walls

Exhibitors sometimes prefer their stands to be closed in. In such cases, the stands must have exits which open towards the hall gangways, and respect decoration rules page 23 article 5. Their size and number will depend on the surface of the stand, i.e.:

- less than 20 sq.m: 1 x 0.90 m opening;
- 20 - 50 sq.m: 2 openings, one 0.90 m, the other 0.60 m;
- 51 - 100 sq.m: either 2 x 0.90 m openings, or 2 openings, one 1.40 m, the other 0.60 m ;
- 101 - 200 sq.m: either 2 openings, one 1.40 m, the other 0.90 m, or 3 x 0.90 m openings

These openings must be positioned as effectively as possible (one every six meters), preferably one facing the other. Each of them should have a very clear "sortie" (exit) sign in white letters on a green background. If the openings are closed up by doors, these doors should open up in the exit direction; they should not have any locking system and not overswing the hall passageway when opened.

4.2. Special requirement rooms

Apart from the use of special areas for exhibition purposes, special assembly rooms, cinemas and so on, may be set out. Galleries and terraced rooms or steps including standing room should be able to support 600 kg per sq.m. Galleries and terraced rooms or steps provided with seats should be able to support 400 kg per sq.m. Entry and exit steps towards terraced rooms or steps should have a minimum height of 0.10 m and a maximum height of 0.20 m and the tread should be at least 0.20 m. In this is the case, the flight of stairs is limited to 10 and the aligning of the nosing of the stairs must not exceed 45°.

Since each case is specific, a detailed plan should be submitted to the technical advisor to the security services who will define which safety measures should be applied.

5. Liquefied gas

5.1. General remarks

One bottle of gas, Butane or Propane, weighing a maximum of 13 kg, will be allowed per stand of 10 sq.m, with a maximum of 6 bottles per stand.

The following precautions should be taken:

- There should be an empty space of at least 5 m between two bottles, but this distance may be reduced if a rigid, 1 cm thick, fire-proof screen separates them.
- Bottles, full or empty, are allowed in the exhibition halls only if they have been previously connected to a gas device in use.
- Bottles without a pressure-reducing valve, and not in use for demonstration purposes, are forbidden.
- The bottles may be connected to gas apparatus in operation by standard flexible pipes. Such connecting pipes must
 - be renewed at the expiry date;
 - be of same diameter as the linking-pipes and be fitted with a tightening-band;
 - not exceed 2 metres in length;
 - be totally visible, free to move and not bent;
 - be at a distance which cannot be reached by flames of burners or combustion products.

5.2. Gas supply

If, and this should be an exception, one bottle supplies several burners, the pipes connecting these burners must be of metal (copper or steel). The use of soft metal soldering joints are forbidden. Bottles should always be placed upright and there must be free access to the stop valve(s) under all circumstances. If the bottles are located in a closed space, this space must have ventilation openings at its base and upper part and be unobstructed by any partition wall, piece of furniture or any apparatus.

5.3. Installation of cooking devices

In addition to the rules and regulations described above, the following rules must be complied with:

- The ground (or table) supporting cookers must be made of fire-proof material or covered with fire-resistant material (French standard: M0).
- Cookers must be kept at a distance from any inflammable material and must be installed in such a way as to prevent any fire hazard.
- If these cooking devices are situated close to a partition wall, this wall should be covered with a fire-resistant material (French standard: M0) at a height of 1 metre from the ground.
- Cookers hoods must be installed above any apparatus giving off exhalation and vapour.
- Fuse boxes should be at a distance of at least 1 metre from any water supply point.
- All kitchen facilities should:
 - include safety instructions (behaviour in case of fire emergency, firemen's number, etc.);
 - be provided with one or several fire-extinguishers.

6. Operational equipment thermal and combustion engines

A preliminary declaration (see order form) for any machine or engine displayed in actual operation should be submitted at least one month before the opening of the event, in line with the example declaration in the appendix. Only installations used exhibitors who have made this declaration, will be authorized. All equipment on display must be properly stabilized so as to avoid any risk of overturn.

All safety precautions and devices must be completed by the time of the visit of the Security Commission. A qualified person from the exhibiting company should be present on the stand when this visit takes place. No machine may be put into operation, or presented in operation, without the presence of a qualified person on the stand. The exhibitor will carry the entire responsibility for any demonstration given. The supply of electricity will be completely cut off on the stand of an exhibitor where operational machines present a danger for visitors and where the necessary safety precautions have not been taken.

6.1. Operational equipment in a stationary position

All such equipment should either be equipped with screens or fixed casing, which will keep the public well away from any moving part or be exhibited in such a way that all moving parts are out of reach for visitors, or at least be positioned 1 metre from any general hall gangway or passage.

6.2. Equipment in motion

Whenever equipment is presented in motion, a protected area should be reserved for these maneuvers so that there will always be a minimum distance of 1 meter between the equipment and visitors; this minimum distance may be increased according to the characteristics of the equipment on display. These regulations will be valid for all stands, including stands located outdoors.

6.3. Equipment provided with hydraulic jack(s)

If material equipped with hydraulic jack(s) is exhibited in a raised position, the hydraulic security device must be safeguarded by a mechanical safety device which will stop any accidental sinking down to the initial position.

6.4. Thermal and combustion engines

Permission for the use of thermal and combustion engines must be requested from the organizers at least 30 days before the opening of the event. Such a request should be written on separate sheets of paper (and, without fail, sent in together with the Operating Certificate for Machine/Engine/Instrument contained in the appendix). This request should clearly state the kind and daily quantity of fuel to be used and be accompanied by a technical data sheet for the engine/machine and a layout drawing of the location of the engine/machine on the stand. No engine/ machine of this kind may be put into operation if the necessary request for permission has not been filed in due time

NOTE: All combustion gas must be evacuated outside the halls.

7. Inflammable fluids

7.1. General rules

The use of inflammable fluids on stands are limited to the following quantities:

- 10 litres of inflammable liquids in the 2nd category per 10 sq.m of stand surface area with a maximum of 80 litres;
- 5 litres of inflammable liquid in category 1.
- The use of highly inflammable fluids or liquids (ethyl-oxide, carbon disulphide and so on) is forbidden.
- The following precautions should be observed:
 - a leakproof collector with a volume capacity corresponding to the volume of the combustible fluid should be placed underneath the cans or container;
 - the apparatus should be recharged when absolutely no visitors are present;
 - appropriate fire extinguishers, in line with the risks involved, must be placed close by.

7.2. Exhibition of motor vehicles inside halls

The fuel tanks of vehicles using petrol must be empty or provided with a locking petrol cap. The battery clips of accumulator batteries must be protected so that they are out of reach.

7.3. Presentation of inflammable products

All containers of inflammable fluids or liquids which are presented on stands, must be empty (boxes of paint, varnish, bottles, aerosol cans and so on), with the exception of a limited quantity of samples to be used for demonstration purposes.

7.4. Prohibited equipment, materials, products and gases

Bottles of gas, nitrogen and carbon dioxide are authorized without restriction.

741. The following items and activities are prohibited in the exhibition halls (in accordance with article T45 of the safety regulations)

- distribution of samples and products containing flammable gas;
- balloons filled with a flammable or toxic gas;
- celluloid articles;
- presence of pyrotechnics or explosives;
- presence of ethyl oxide, carbon disulphide, sulphuric (ethy) ether and acetone.

742. It is prohibited to use acetylene, oxygen, hydrogen or any gas presenting similar risks, unless special dispensation is obtained from the competent administrative authorities (i.e. Prefecture, Safety Commission). Contact the Safety Officer at least 1 month in advance of the beginning of the exhibition for information about the required administrative procedures.

NOTE: No storage of bottles, empty or full, will be allowed inside the halls.

7.5. Smoke generator

The use of smoke producing devices for the creation of special smoke and light effects requires a special authorization from the administrative authorities (i.e. Prefecture, Safety Commission) at least one month in advance of the beginning of the exhibition. Contact the Safety Officer. He will inform you about the required administrative procedures to obtain this authorization. Such a request should be made on separate sheets of paper (and, without fail, sent in together with the Operating Certificate for Machine/Engine/Instrument contained in the appendix). This request should clearly state kind and daily quantity of gas to be used and be accompanied by a technical data sheet for the engine/machine; a layout drawing of the location of the engine/machine on the stand.

No engine/machine of this kind may be put into operation if the request for permission has not been filed in due time

8. Radioactive substances - X-rays

8.1. Radioactive substances

Permission to present radioactive substances on exhibition stands may only be granted for demonstrations of equipment and in cases where the radioactivity levels of such substances are below:

- 37 kilobecquerels (1 micro curie) for those made up of or containing radio elements in group I (4);
- 370 kilobecquerels (10 micro curies) for those made up of or containing radio elements in group II (4);
- 3,700 kilobecquerels (100 micro curies) for those made up of or containing radio elements in group III (4);

Exceptions may be granted for the use of substances with a higher radioactivity on condition that the following steps are taken:

- The radioactive substances must be effectively protected ;
- Their presence must be marked by standard ionizing radiation diagrams defined by the NF M 60-101 standard. Their type and radioactivity must also be marked;
- Steps must be taken to make it impossible for the public to remove them. Such steps must include either a system of attachment to an instrument in use requiring disassembly with the aid of a tool, or the positioning of equipment at a distance;
- They must be watched at all times by one or more specially appointed exhibitors;
- After the surveillance period, even if no member of the public is present, the radioactive substances must be stored in a fire-proof container clearly showing the standard symbol for ionizing radiation;
- The equivalent dosage rate must remain below 7.5 microsieverts per hour (0.75 man equivalent millrads per hour) throughout the stand.

The use of radioactive substances requires a special authorization from the administrative authorities (Prefecture, Safety Commission) at least one month in advance of the beginning of the exhibition. Contact the Safety Officer. He will inform you about the required administrative procedures to obtain this authorization. This request must be written on separate sheets of paper (and, with the Operating Certificate for Machine/Engine/ Instrument contained in the appendix) and should specify: the type and radioactivity of the substances and the group to which they belong, the name and position of the person(s) appointed to watch them, and should be accompanied by a technical data sheet for the instrument/machine; a layout drawing of the location of the instrument/machine on the stand and a document compiled and signed by the installer certifying compliance with these regulations. No instrument or machine of this type must be put into operation if the request for permission has not been filed in due time.

VERY IMPORTANT: Stands where radioactive substances are presented must be built and decorated with category M1 materials.

8.2. X-rays

Permission to present instruments releasing X-rays on exhibition stands will only be granted if such instrument and their associated accessories meet the requirements laid down by the NFC 74-100 standard.

In particular, the following steps must be taken:

- Unnecessary objects near the X-ray generator and sample to be examined must be removed;
- The area out of bounds to the public must be marked and signposted;
- The leaked radiation exposure rate must not exceed 0.258 microcoulombs per kilo per hour (1 millirongen hour) at a distance of 0.10 meter from the X-ray generation center.

The use of instruments or machines releasing X-rays requires a special authorization from the administrative authorities (Prefecture, Safety Commission) at least one month in advance of the beginning of the exhibition. Contact the Safety Officer. He will inform you about the required administrative procedures to obtain this authorization;

This request must be written on separate sheets of paper (to be sent together with the Operating Certificate for Machine/Engine/ Instrument contained in the appendix) and must be accompanied by a technical data sheet for the instrument/machine; a layout drawing of the location of the instrument/machine on the stand and a document compiled and signed by the installer certifying compliance with these regulations. No instrument or machine of this type must be put into operation if the request for permission has not been filed in due time.

(4) The classification of the radio elements of radioactive substances, in line with their relative radiotoxicity, is the same as that defined by decree n° 66-450 of 20 June 1966, concerning General Principles for Ensuring Protection against Ionizing Radiation.

9. Lasers

Indoor use of lasers will be authorized under the following conditions:

- Visitors must in no way be exposed to a direct or reflected laser beam;
- The apparatus and associated equipment must be solidly fixed to a stable surface or elements;
- The direct surroundings of the apparatus as well as the beam scanning space must not contain any reflecting elements with the wavelengths in question;
- The casing box for the laser and its possible optic derivation device must be in class I or II (As specified by the NF C20 – 030 standards)
- For tests performed when no visitors are present, exhibitors should ensure that the heat energy resulting from the light of the laser beams does not cause any reaction in terms of the installation and decoration material on the stand.

The use of instruments or machines releasing X-rays requires a special authorization from the administrative authorities (Prefecture, Safety Commission) at least one month in advance of the beginning of the exhibition. Contact the Safety Officer (**Cabinet Watteau**) . He will inform you about the required administrative procedures to obtain this authorization.

This request must be written on separate sheets of paper (to be sent together with the Operating Certificate for Machine/Engine/ Instrument contained in the appendix) and must be accompanied by a technical data sheet for the instrument/machine; a layout drawing of the location of the instrument/machine on the stand and a document compiled and signed by the installer certifying compliance with these regulations. No instrument or machine of this type must be put into operation if the request for permission has not been filed in due time.

10. Emergency devices

All emergency devices must stay clearly visible.

There must be free access at all times to all emergency device (fire hydrants and stand pipes, fire plugs with hose and spout, telephones, fire extinguishing cartridges, smoke outlet controls and so on). On stands equipped with fire plugs with hose and spout there must be a free passage of 1 metre from the closest hall gangway for public passage to this safety device; no material or exhibits must obstruct the way. It is strictly forbidden to cover up the device with any fabric or paneling.

11. General instructions

It is forbidden to stock any cases, wood, straw, cardboard boxes, etc. on stands or free passages close to stands. A daily cleaning is necessary to remove dust and rubbish from all stands and structures.

All garbage resulting from the daily cleaning should be removed every day and brought outside the exhibition premises before the opening to the public.