

## ANNEX 1

# FIRE SAFETY REGULATIONS

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## 1 Introduction

It is self-evident that when designing, building, equipping and using stands for events, compliance must be ensured with safety regulations as included in the applicable Buildings Decree 2012.

This document provides information on the fire safety regulations that must be complied with, ranging from requirements concerning materials to be used in and around stands, the necessary emergency escape routes, as well as compliance with the basic prerequisites relating to electricity, equipment, use of gas cylinders, barbecues, etc.

Due attention is also focused in this document on the structural requirements that stands must meet, together with an explanation concerning the activities for which it is mandatory to obtain a separate permit / permission.

## 2 Requirements for stands in general

A stand must be constructed at the location and must have the dimensions (length, width, height) specified by the exhibition organiser.

It is prohibited to place or cause to be placed any objects or materials in a manner that would hinder the immediate use or visibility of the following:

- a. facilities or means with which a fire could be reported or that could be used for fighting a fire or its consequences. For example, it is important to keep the manual detectors of the fire alarm system, smoke hatches, fire hose reels, and portable fire extinguishers free of all obstacles, and that a distance of at least 600 mm must be maintained from the nozzle of a sprinkler system;
- b. facilities for safe evacuation or rescue in case of an incident. Keeping aisles, emergency exits, outdoor fire-fighting equipment and emergency access routes free of obstacles. No stand shall ever be constructed so as to impede access to these facilities

Insofar as the report refers to a standard, the latest edition of the same as applicable at the time of installation shall be used.

Please refer to the Regulation on the Buildings Decree 2012 for further information.

### 2.1 structural requirements for stands

The load-bearing structural components of the stand must be designed to be stable.

Floor partitions to be installed shall also comply with the general strength requirements laid down under Section 2.1 of the Buildings Decree 2012.

If the exhibition organiser has any doubts concerning whether or not the structure complies with the structural requirements to be laid down under Dutch legislation, it may always require the submission of further information substantiating the structural safety.

### **2.1.1 structural requirements for single storey stand (two storey)**

- a. the floor height of a stand shall be a maximum of 4.2 m, measured from the floor of the hall;
- b. in case of a two storey stand, compliance with Section 2.1 of the Buildings Decree 2012 must be ensured as regards the structural stability of the building structure. The exhibitor must be able to submit a calculation showing that the structural safety meets the requirements laid down herein;
- c. the construction of a stand with a floor intended for the accommodation of persons always shall require permission from the MECC.

### **2.1.2 structural requirements for galleries**

- a. the exhibitor must be able to submit a calculation showing that the structural, evacuation and operational safety of the gallery meets the requirements laid down in the Buildings Decree 2012;
- b. a gallery shall require the approval of the MECC.

### **2.2 evacuation safety for single storey stand (two storey)**

In addition to the structural safety referred to in Clause 2.1.1, the structure must have escape routes to enable unhindered passage to a safe location in case of emergencies. If the essential prerequisites specified under Clause 2.2.1 are duly fulfilled, this will already be present.

#### **2.2.1 requirements for accessibility / evacuation safety in two storey stands**

The number of exits and stairs required depends on the upper floor area of the stand.

- a. one exit and one straight flight of stairs with a minimum width of 1 m shall be adequate for an area not exceeding 50 m<sup>2</sup>;
- b. where the floor area of the upper storey is 50 m<sup>2</sup> or more, a second exit shall be provided if the ground floor cannot be reached within 20 m from any point on the upper storey and/or the number of persons that can be present on the upper storey at the same time exceeds 25.  
In case there is a need for a second exit, both exits shall be at least 5 m apart, and it shall be possible to reach the ground floor from any point on the upper storey within 30 m via both escape routes;
- c. if the aforementioned basic prerequisites cannot be fulfilled or if more than 200 persons will be present on the upper storey at the same time, the written approval of the MECC must be obtained, which may issue additional instructions or refuse to grant permission for the proposed structure;
- d. the vertical distance between the floor of the stand and the floor of the hall must not exceed 4.2 m. If the ground floor is intended for the accommodation of persons, the net height of the ground floor must be maintained at a minimum of 2.5 m;

- e. the top end of a straight flight of stairs must connect to the platform of at least the same width as the stairs.  
The maximum angle of inclination of the stairs shall not exceed 45 degrees.  
The height of the steps must not exceed 0.21 m.  
Stair treads, measured along the climbing line, shall not be less than 0.21 m.  
The width of the stair treads, measured along the climbing line at right angles to the front of the step, shall be at least 0.23 m.  
The total of 2 risers and 1 tread must measure at least 0.60 m and preferably should not exceed 0.65 m. (2 treads + 1 riser = 0.60 to 0.65 m);
- f. spiral staircases are only permitted as an escape route if a maximum of 10 persons should have to use them. If spiral staircase is permitted, the minimum width of the tread measured at right angles to the front of that plane must be at least 0.17 m (Note: this actually means a minimum spindle diameter of at least about 0.70 m);
- g. stairs shall be provided on both sides with solid and securely attached handrails, located at a height between 0.8 m and 1 m, measured from the front of the steps. If the stair width exceeds 2.20 m, it shall be divided by one or more securely attached handrails;
- h. proper floor partitions must be installed at the staircase, floor or access ramp location, if the difference in height between the floor or stair in relation to the adjacent floor exceeds 1 m.  
The height of the floor and stair partition must be at least 1 m;
- i. There shall be no openings in the floor and stair partition through which a sphere with a diameter exceeding 500 mm can pass;
- j. If the floor, staircase or ramp is also intended for children under the age of 12, there shall be no opening, over and above the provisions contained in the subclause (i) above, up to a height of 700 mm, through which a sphere with a diameter exceeding 200 mm can pass; and in order to prevent children from climbing over, it should not be possible to place a step between 0.2 m and 0.7 m measured above a floor, the front of treads, or the ramp.

### **3 Material to be used in the stand**

#### **3.1 walls and ceilings**

Materials of construction components forming part of walls and ceilings must fulfil the requirements laid down in the Buildings Decree 2012 in relation to fire propagation and the spread of smoke.

- a. the materials used in the stand construction shall fulfil the requirements of fire propagation class 1 or 2 as per NEN 6065:1991/A1:1997 or the comparable fire class A or B, determined in accordance with NEN-EN 13501-1;
- b. the optical smoke density of these materials shall not exceed 5.4 m-1 according to NEN 6066:1991/A1:1997 for fire propagation class 1.  
The optical smoke density of these materials may not exceed 2.2 m-1, in accordance with NEN 6066:1991/A1:1997 for fire propagation class 2.  
Alternatively, the material shall comply with smoke class s2 determined as per NEN-EN 13501-1.

#### **3.2 floor finish**

- a. materials of construction components shall comply with the requirements laid down in the Buildings Decree 2012 with regard to fire propagation and the spread of smoke.  
This means that the material used for the top of a floor, stair or ramp that borders on the point where the indoor air begins, must conform to fire propagation contribution requirements of Class T1 as per NEN 1775, and smoke production with a smoke density not exceeding 10 m-1 as per NEN 6066 1991/A1:1997.  
It shall also be permissible to use material that complies with smoke class S1fl and fire class Cfl as per NEN-EN 13501-1;
- b. the floor covering in the stands and other areas open to the public shall at least comply with the requirements laid down under NEN-EN 1775:2007 and NEN 1775/C2, class 1 or 2, in relation to floors. The floor covering in the aisles, escape routes and staircases shall at least comply with fire propagation class 2 as per NEN 6065.
- c. floor coverings and stair carpets shall be installed in such a manner that they cannot move, curl or roll up, and shall also not cause visitors to slip, trip or fall.

#### **3.3 use of reflective and transparent materials**

Glass mirrors may be used as wall coverings in the stands and other areas open to the public if they are properly placed against a solid support surface.

This means that the mirrors must not collapse even if considerable pressure were to be applied against them.  
Vertical reflective surfaces composed of stretched plastic film materials shall be permissible provided that the material is made non-(easily) flammable and is provided with flame-retardant characteristics during the production stage itself.

Glass or foil mirrors must not adversely affect the orientation of the visitors, particularly as regards the location of exits. It is prohibited to install mirrors in aisles or escape routes, unless the mirrors are interrupted at the vision height. Glass sheets designed as mirrors or stretched film materials may never be used as structural elements in the ceiling. Glass panels in external walls or partitions of a stand may only be made of safety glass or reinforced glass.

### **3.4 use of paints**

For stand construction and decorative objects, only water-based paints should be used.

### **3.5 material to be used in tents and stand covering**

- a. fireproof fabrics must be used for tents or stands.  
This condition shall be deemed to have been met if a certificate can be submitted showing that the material meets the class referred to under Clause 3.1 or a comparable standard (e.g. DIN standard 4102 B1, M1);
- b. when using textiles as a standard cover, metal threads with a minimum thickness of 0.3 mm shall be laid in one direction at a minimum distance of 1 m from each other;
- c. it is not permissible to use plastic film material as a stand covering;
- d. gypsum boards shall not form part of the stand ceiling;
- e. if a sprinkler system is part of the stationary fire extinguishing system in the exhibition area, a maximum of 30% of the stand area may be covered by a ceiling structure, unless it is provided with a sprinkler fabric that meets the requirements laid down (this must be demonstrable);
- f. a space of 60 cm must always be kept free under sprinkler systems.

## 4 Furnishings of the stand

It is not only the structural components that must be sufficiently fireproof. This also applies, of course, to the furnishing of a stand or tent, for example with regard to the safety of the materials to be used, the layout of chairs, the use of electricity, barbecues and gas.

Note: For some examples of stand construction materials, see Annex H.1.

### 4.1 furnishing elements

Inventory shall mainly include furniture, stands, stalls, shelves, platforms, decors, props and other furnishing elements.

Furnishing elements shall be sufficiently fireproof, i.e. shall not readily catch fire and shall not contribute significantly to fire propagation.

The following requirements shall always be met if the air-facing element:

- a. is non-combustible, as determined in accordance with NEN 6064;
- b. meets propagation class 1 or 2 determined as per NEN 6065 or fire class A or B as referred to in NEN-EN 13501-1;
- c. has a thickness of at least 3.5 mm and complies with class 4 as referred to in NEN 6065 or fire class D as referred to in NEN-EN 13501-1, or
- d. has a thickness of less than 3.5 mm and is bonded to a component specified in b or c, over its entire surface.  
Thin materials generally have less favourable combustion properties than thicker ones (thin materials often ignite faster).  
If a thin material as per subclause d is bonded over its entire surface with a material as per subclause b or c (the carrier), the properties of the combined materials must result in approximately the same reaction of the thicker carrier material to fire.

### 4.2 decoration

The term 'decoration' refers to curtains, net curtains, festoons or other ornamental items that are not counted in the structural components or inventory.

In addition to minor furnishings (such as a plant), decorations which do not present a fire hazard must be used.

This danger does not exist if the decoration:

- a. is non-combustible, as determined in accordance with NEN 6064;
- b. complies with fire class A1 as referred to in NEN-EN 13501-1;
- c. meets the requirements applicable to structural elements as per clause 2.9; or
- d. has an afterflame time of not more than 15 seconds and an afterglow time not exceeding 60 seconds.

Note: for the position of the stand covering, see 3.5.

#### 4.3 upholstery

The Buildings Decree does not contain specific requirements for the upholstery of chairs or walls.

Notwithstanding the above, and taking into account the residual risk, the upholstery of chairs and walls should also not be easily inflammable or produce too much smoke.

Upholstery materials for the walls shall be acceptable provided they fulfil the requirements laid down under 4.2.

In the case of furniture, a certificate making reference to a different standard may be provided.

Acceptable in case the materials conform to NEN EN 1021-1 and -2.

- NEN EN 1021-1: Furniture - Assessment of the ignitability of upholstered furniture using a smouldering cigarette as an ignition source.
- NEN EN 1021-2: Furniture - Assessment of the ignitability of upholstered furniture using a match flame equivalent as an ignition source

The following standard may for example, be regarded as an equivalent of the above: the German DIN 4102 standard, which takes into account all properties relating to the reaction of materials to fire, such as flammability/non-flammability, heat release, combustibility, flame spread rate on the material surface and smoke development. A reference to the US BIFMA class A and NFPA 260A is also acceptable.

#### 4.4 impregnation of combustible materials

- a. In the absence of a test report evidencing that the material fulfils the necessary fire class criteria, various materials may be impregnated to ensure that the material fulfils the requirements (\*).  
Such impregnation (treatment) may be carried out as follows:
  - spraying the material with the mist of a fine salt solution;
  - some materials require immersion in a saline solution for 2x24 hours before the desired effect can be achieved;
  - the surface of the material may be painted with a special paint or varnish (foaming on application of heat);
- b. the impregnation (treatment) of materials shall be done using the impregnation agent that is appropriate for the substance in question. In case of doubt concerning the impregnation (treatment) of the material, a specialised firm may be consulted, which can assess whether or not such impregnation (treatment) is at all possible; if so, such impregnation processes may be used;
- c. a certificate shall be issued after treatment. The certificate shall contain the following information:
  - description of the impregnated (treated) material (name, colour, etc.)
  - date of treatment.
  - company stamp, name and signature of the firm performing the treatment

(\*) materials that cannot be made fire retardant through impregnation include the following, among others:

- plastic films and sheets
- materials with plasticized surfaces
- compact or expanded plastics
- natural and synthetic rubber
- textiles of 100% synthetic fibres
  - floor covering material of synthetic fibres (with or without "rubber backing").

#### **4.5 other remarks**

- a. spotlights and other equipment that achieves a surface temperature exceeding 80 degrees C should not be placed on the furnishing material.
- b. under certain circumstances, it shall be permissible to hang curtains in passages between stands into which passageways open out, and where such passages, due to their location, form a part of emergency escape routes in a room.  
In order to visually hide the stand, a partition structure may be installed at a distance of at least three-quarters of the width of the passage.  
Such visual screening off may also be achieved by hanging 0.5 m wide flannel strips, with a clearance of 0.05 m from the floor, and securely fastening them to a frieze.  
Where emergency doors, fabrics, curtains or other furnishing material are fitted, they shall be fastened to the doors in such a manner that they do not obstruct free passage.  
Consequently, curtains etc. must be secured to the door in such a manner that the release mechanism (handle or push rod) is also visible and can be used without hindrance. Fabrics, curtains or other upholstery materials may be fitted without obstructing the clear visibility of the prescribed inscriptions, direction arrows, whether or not they are designed as transparent lighting fixtures.
- c. the presence of balloons filled with flammable gas is prohibited.
- d. "living green" is permissible. It should be borne in mind that capping material will become more flammable (due to drying out) during the course of the exhibition, and consequently, requirements may be imposed with regard to the flammability of the decoration material.  
If plants are placed in a peat bed, the peat bed must be regularly moistened. The size and layer thickness of the peat bed must be limited. The spotlights in the peat bed must be firmly secured in place so as to be stable.  
Plastic "green decoration" (plants, flowers etc.) shall be permissible if they can be classified under the fire propagation class 2 as per NEN 6065.
- e. free-hanging decorations such as fishing nets, velums, etc. must be interlaced with metal wire in one direction, at a minimum distance of 1 metre between the wires.  
the beginning and end of each wire must be properly secured.
- f. the ceiling of the stand should never contain glass sheets.
- g. glass mirrors may be used as wall coverings within the stands, and in other areas accessible to the public, provided they are firmly anchored on a robust supporting surface. This means that the mirrors must not collapse even if considerable pressure were to be applied against them. Vertical reflective surfaces composed of stretched plastic film materials shall be permissible provided that the material is made non-(easily) flammable and is provided with flame-retardant characteristics during the production stage itself.  
Glass or foil mirrors must not adversely affect the orientation of the visitors, particularly as regards the location of exits. It is prohibited to install mirrors in aisles or escape routes, unless the mirrors are interrupted at the vision height. Glass sheets designed as mirrors or stretched film materials may never be used as structural elements in the ceiling.

- h. external or internal standing glass panels shall be permissible, provided they are made of safety glass or of reinforced glass
  - in the case of glass elements fitted in the vertical position:  
Safety glass or glass with enclosed cross-wise reinforcement with a mesh size not exceeding 16 mm enclosed in a wooden or metal frame with a minimum rebate depth of 15 mm.
  - glass elements installed horizontally:  
Safety glass or glass with enclosed cross-wise reinforcement with a mesh size not exceeding 16 mm enclosed in a wooden or metal frame with a minimum rebate depth of 15 mm.
- i. there is a general prohibition on smoking
- j. additional requirements may be imposed in case of pop group performances.  
The measures shall mainly consist of organisational measures and may relate to:
  1. the compartmentalisation of visitor groups by placing fencing and 'stage barriers', with regard to emergency exits;
  2. the preparation of a security plan;
  3. setting up a team responsible to maintain order. The security guards shall be engaged by a security agency holding an ND (Dutch National Service Number) permit;
  4. the security agency must conform to the requirements of the NEN standard NTA 8020-30;
  5. optimisation of the communication facilities, taking into account the high noise levels;
  6. the adoption measures to regulate ticket sales.The maximum number of visitors to be admitted shall be determined in advance and shall not be exceeded during the performance;

#### **4.6 arrangement of seats and other equipment**

##### **4.6.1 required area per person**

Space layouts must be such that:

- a. a minimum of 0.25 m<sup>2</sup> of floor area shall be available for each person without a seat;
- a. a minimum of 0.3 m<sup>2</sup> of floor area shall be available for each person with a seat,  
if no inventory items can fall or be displaced as a result of jostling or crowding;
- c. a minimum of 0.5 m<sup>2</sup> of floor area shall be available for each person with a seat, if inventory items can fall or be displaced as a result of jostling or crowding.

The floor area availability per person shall be calculated as the floor area of the occupied space minus the area occupied by the inventory. MECC Maastricht shall perform this calculation.

#### **4.6.2 arrangement of seats**

- a. in rooms containing over 100 seats, the seats shall be interlinked or fixed to the floor to effectively prevent them from being displaced or overturned due to jostling or crowding, insofar as the seats are arranged in more than four rows of more than four seats per row;
- b. if the seats are arranged in rows, minimum 0.4 m wide free space must be provided, as measured between the perpendiculars to the nearest parts of the rows;
- c. If a table is placed between the seats in a row as referred to under subclause b above, it must not be located in the free space as per subclause b above;
- d. a row of seats reaching only one end of an aisle or exit shall not contain more than 8 seats;
- e. a row of seats leading to an aisle or an exit at both ends shall have a maximum of:
  - 16 seats, if the free space referred to in subclause 3 does not exceed 0.45 m and the width of the unhindered passage through the aisle or exit is at least 0.6 m;
  - 32 seats, if the free space referred to in subclause 3 exceeds 0.45 m and the width of the unhindered passage through the aisle or exit is at least 0.6 m;
  - 50 seats, if the free space referred to in subclause 3 exceeds 0.45 m and the width of the unhindered passage through the aisle or exit is at least 1.1 m;

#### **4.7 emergency lighting and escape route display**

- a. If more than 75 persons are expected to be simultaneously present within a stand, the stand shall also be equipped with emergency lighting facilities in case the stand is surrounded by opaque walls on two or more sides.
- b. If more than 50 persons are expected to be simultaneously present within a stand, and the escape doors or escape openings are to be used which are located in a wall structure, due to which the escape route indication is no longer visible outside the stand, such escape route indication shall be installed at such escape door or opening.

#### **4.8 fire extinguishing media**

- a. from an exit of a stand, it shall be possible to reach a manually operated extinguisher within 20 m with a minimum filling capacity of at least 6 kg/l of extinguishing agent;
- b. in addition to the provisions under subclause a, there should also be sufficient extinguishing agents (e.g. buckets with water, carbon dioxide snow extinguishers with a capacity of at least 6 kilograms, etc.) available in the immediate vicinity of the barbecue for immediate use.
- c. extinguishing media shall always be easily accessible and ready for immediate deployment.
- d. the extinguishing media shall be maintained in accordance with NEN 2559.

## 5 Electricity, gas, barbecues, fuels

### 5.1 electrical installation / stand lighting

- a. stands shall only be illuminated with electric lighting.  
The components of the electrical installation must bear a CE mark.  
The electrical installation may only be carried out by recognised installers and must fulfil the relevant regulations of applicable standards as per the Buildings Decree, before the installation is connected to the grid (mainly NEN 1010 and NEN 3140).
- b. installations in the stands must be made using cables with a core cross-section of 2.5 mm<sup>2</sup>; VD (voltage drop) installation wire 2.5 mm<sup>2</sup> in cable conduit is also permissible. Cables with core cross-sections that fail to conform to the requirements laid down is not permitted, unless the installer can demonstrate that it meets the requirements laid down as per NEN 1010.
- c. some of the principles to be applied:
  - the installation must be divided into sufficient groups and each group shall be provided with the necessary safety devices. Maximum load per group 3 kilowatts (16 amps). Lighting and power installations with a power exceeding 3 kw shall be divided into three phases.
  - electrical cables must be installed at a sufficient distance from steam, water or gas pipes. Adequate protection must be provided for cables subject to the risks of damage.
  - motors shall be fitted with a thermal protection switch.  
Motors with a power exceeding 3 kw must be fitted with a star-delta switch.
  - soldering joints must be made using twist-on wire connectors or terminals.  
Twist-on wire connectors shall not be concealed behind walls, under floors or in ceilings.
  - proper earthing must be ensured for metal parts that may become live in case of a defect. Cables must be securely fastened.
  - a minimum distance of 0.10 m must be maintained between heat-emitting luminaires and combustible material of any kind. Furthermore, reflected radiation must not impinge on flammable material within a distance of 0.30 m measured from the edge of the reflector
  - neon devices or neon installations must comply with NEN 1010.  
Safety requirements for luminous discharge-tube circuits of neon installations and neon appliances shall comply with NEN-EN 50107.
  - it is permissible to connect no more than 2 neon devices compliant with NEN 1010, NEN-EN 50107, through a plug connection that must be within easy reach.
  - where several adjacent neon devices are used, one central fireman's switch shall be provided to operate the same.
  - neon installations and neon appliances that cannot be accessed easily must always be protected with one central fireman's switch, and is a part of the stand construction, or does not comply with NEN 1010, NEN-EN 50107.
  - movable cables (extension cords) must not exceed 25 m in length, must be fully unrolled, and must never be spliced together.
  - the movable cable (extension cord) must be placed and fastened so that no one can trip over it.
  - each control cabinet must have its own fuse protection.

## 5.2 gas cylinders/LPG

### 5.2.1 gas cylinders may NOT be placed in the hall (and therefore not in the stands as well).

Only gas cylinders located outside the hall may be used.

The following conditions must be fulfilled:

- a. the length of a gas cylinder connecting hose for a temporary installation outside the building may not exceed 10 metres;  
Gas hoses pass into the building via a lead-through in the façade.
- b. the gas cylinder(s) must be installed outside the hall in a restricted space or a separate storage area with markings, at a distance of at least 5 metres from any built-up structure, unless the façade of the building has been designed to be fire-resistant for at least 30 minutes;
- c. unauthorised persons must not be able to access the storage location of the gas cylinders;
- d. gas cylinders placed in a restricted space must be adequately ventilated;
- e. in case artificial lighting, electrical switchgear, a fuse box or sockets is going to be installed in the room or space in which the gas cylinders are installed, these elements must fulfil the requirements laid down under NEN 1010. Furthermore, it is prohibited to bring heating equipment or naked flames into such space, or to smoke therein, which must be indicated with the inscription "SMOKING AND OPEN FLAMES PROHIBITED";
- f. gas cylinders shall be securely fixed in the vertical position in a manner that prevents the risk of them falling over;
- g. the handwheel (or key) must be located on the spindle of the gas cylinder valve;
- h. the gas cylinder valve must be closed each day after the closing time of the exhibition for visitors;
- i. the gas cylinder must be turned off during emergencies and removed from the building if possible.
- j. gas cylinders and gas hoses may only be connected by MECC, which uses its own installer.

### 5.2.2 gas cylinders for own use by MECC

An exception to the provisions of Clause 5.2.1 can be made for the MECC, which may place a maximum of 2 gas cylinders in each hall for its OWN USE.

Apart from the requirements laid down under Clause 5.2.1g to p, the following additional conditions must be met:

- a. unless otherwise specified in the related permit, a maximum of one propane or butane gas cylinder with a water capacity not exceeding 26.2 litres may be present in each stand.
- b. no more than one gas cylinder, with a maximum capacity of 10 litres (acetylene, oxygen, etc.), may be present in the stand of one type of gas or any other gas compressed into liquid, unless otherwise specified in a supplementary permit that must be obtained;
- c. no stocks of filled or empty gas cylinders shall be present in the stand or in the hall;
- d. a fire extinguisher, e.g. a carbon dioxide snow extinguisher with a minimum capacity of 5 kg. or a spray foam extinguisher with a minimum capacity of 6 litres of water and 1 litre of foam-forming liquid, must be visibly present and ready for immediate deployment;

### 5.2.3 gas pipes and fittings

- a. the connection between the gas cylinder and the gas-consuming equipment shall be made with metal pipes with metal couplings. A flexible hose connection may also be used.  
It shall comply with the NEN 5654-1980, NEN 2920, and NPR 2921 standards;
- b. each gas cylinder must bear a stamped quality mark, together with the date on which the initial inspection and any re-inspections (periodic inspection) was conducted. The mark indicating the periodic inspection shall be the registered trademark of the investigative body that has been approved by the authority in the Netherlands;
- c. the gas hose must not be more than 5 years old and its length must be the minimum possible.  
Fixed metal pipes shall be used to connect the gas cylinder(s) and the consuming appliance, and the last 1.5 metres of such pipe shall be an approved gas-resistant hose (in conformity with NEN-EN 1763);
- d. each pipe shall be secured in such a manner that the risk of deflection is eliminated and also that the distance between the fastenings shall not exceed 2 metres; in addition, there shall be a fastening at a maximum distance of 0.3 metres from each side of a valve, elbow or joint;
- e. hoses, pipes, couplings, clamps, pressure vessels and appliances must be properly installed and in good condition at all times. Each pipe and cable must be protected against damage (e.g. by a bridge structure over a pipe/cable);
- f. There shall be a test report evidencing that the (LPG/propane) vapour gas installation has been subjected to an annual inspection.

### 5.2.4 spray cans when applying special effects

Notwithstanding the provisions of Clauses 5.2.1 to 5.2.3, gas may be used if spray cans are used. This shall however be subject to the fulfilment of the following conditions:

- a. there may be a maximum volume of 500 ml per spray, subject to a maximum number of 20 pieces including working stock (all other storage shall be located outside the MECC);
- b. the user shall comply with the safety regulations specified in the user manual for the products to be used, and must be able to prove such compliance;
- c. if spray cans are used in the hall, a manual fire extinguisher with a filling volume of at least 6 kg/l of extinguishing agent must be available within a distance of 20m. The extinguishing agent must be easily accessible at all times and ready for immediate deployment. The extinguishing agent must be maintained in accordance with NEN 2559;
- d. the municipal authorities and the fire brigade reserve the right to impose further conditions.

### 5.3 laser light

The use of laser lights shall always be notified to the exhibition organiser.

Conditions for use may be laid down according to the type of laser (wavelength, energy, pulsed or not pulsed).

A permit from the competent authority shall be required in most cases.

Compliance with the conditions, as stated in the permit, shall be verified by the Ministry of Social Affairs and Employment and/or the Labour Inspectorate.

**Class 1: Safe sources of radiation:**

This includes lasers and laser systems, which cannot cause radiation damage even when used in the worst-case scenario. These may be used by anyone and under all normal operating conditions without further measures.

**Class 2: Not completely safe sources of radiation:**

This includes lasers emitting visible light (wavelength between 400 nm and 700 nm) of sufficiently low power (<1 mW). The protection of the eye is normally ensured by a natural reaction to pain or glare by closing the eye in time (reaction time approximately 0.25 s). A laser beam that hits the eye unexpectedly and briefly is therefore not harmful. There can only be injury if a person stares into the laser beam against his natural reaction.

#### **5.4 barbecues**

The organiser or exhibitor may not organise barbecues in or around the building.

The house caterer may provide a barbecue under the following conditions:

- a. the barbecue must be set up at least 10 metres from any structure;
- b. the barbecue must be set up securely, so as to be fireproof;
- c. the provisions of Clause 5.2 shall apply in full to barbecues;
- d. the fuel in the barbecue must not be ignited using highly inflammable liquids such as methylated spirits or similar products;
- e. sufficient extinguishing agents (e.g. buckets of water, carbon dioxide snow extinguishers with a capacity of at least 6 kilograms, etc.) must be present in the immediate vicinity of the barbecue, and be available for immediate use;
- f. after the barbecue, combustion residues must be extinguished and covered with a layer of sand or earth.

Note: for heating and cooking conditions, see Annex H.2.

#### **5.5 exhibition of vehicles/vessels**

- a. vehicles and vessels with petrol engines may be exhibited in the hall, with an almost full fuel tank. The fuel tank must be properly and permanently sealed.
- b. vehicles and vessels with diesel engines may be exhibited in the hall, without having to drain the fuel tank, provided that the fuel system is liquid-tight. The fuel tank must be properly and permanently sealed.
- c. cars equipped with an LPG installation may be exhibited in the hall under certain conditions. The equipment, including the tank, shall be installed according to the existing regulations. The tank should however not be fully filled to the permitted 80%, keeping in mind the coefficient of expansion of LPG. It is possible that the temperature increase may cause the pressure to rise and trigger the operation of the safety valve.

## **6 Permissions / permits for exhibitors**

### **6.1 general**

In case of doubts concerning the fire safety regulations to be complied with or in case deviations from the fire safety regulations are made as permitted in the present document, exhibitors must first approach the MECC.

### **6.2 documents to be submitted relating to the material to be used in the stands / tents**

Materials shall comply with the fire and smoke class as specified under clause 3.

This relates to materials used at/in:

- a. walls and ceilings
- b. floor finish
- c. use of reflective and transparent materials
- d. use of materials in tents and stand coverings

The required certificates of the materials used must be present at the exhibition.

### **6.3 documents to be submitted for the layout of stands / tents**

Materials shall comply with the fire and smoke class as specified under clause 4.

These include materials used in/in:

- a. inventory
- b. decorations
- c. upholstery
- d. impregnated materials

The required certificates of the materials used must be present at the exhibition.

### **6.4 seating arrangement plan**

If more than 100 seats are expected to be placed in a room, a layout plan must be submitted to the exhibition organiser for approval.

(see document under Clause 4.6).

### **6.5 delivery of documents**

Permission and the provision of information required under Clauses 6.1 to 6.5 must be requested from the exhibition organiser no later than 8 weeks prior to the opening of the exhibition, or as much earlier as may be determined by the exhibition organiser, stating the stand number and the name of the exhibitor.

Annex H.1

stand construction material	application options
1 softboard	To be used in principle, unless proof exists that class D NEN-EN 13501-1 has been specified, or in cases where all sides (surfaces) are painted with a fire retardant paint / varnish.
2 hardboard	In principle, this should not be used, unless proof exists that class D NEN-EN 13501-1 has been specified, or in cases where at least one side is painted with a fire retardant paint / varnish. Such fire retardant paint / varnish must be applied on both sides if the stand is not directly placed against another stand.
3 wood or composite material thinner than 3.5 mm	To be used in principle, unless proof exists that class D NEN-EN 13501-1 has been specified, or in cases where at least one side is painted with a fire retardant paint / varnish. Such fire retardant paint / varnish must be applied on both sides if the stand is not directly placed against another stand.
4 wood or composite material of 3.5 mm thickness or higher	The material may be used without special treatment.
5 glass elements fitted in the vertical position	Safety glass or glass with enclosed cross-wise reinforcement with a mesh size not exceeding 16 mm enclosed in a wooden or metal frame with a minimum rebate depth of 15 mm.
6 glass elements fitted in the horizontal position	Safety glass or glass with enclosed cross-wise reinforcement with a mesh size not exceeding 16 mm enclosed in a wooden or metal frame with a minimum rebate depth of 15 mm.
7 plastic sheet material, expanded plastic and plastic rubbers	The material must be made of a not readily flammable quality, fulfilling the requirements of fire propagation class NEN 6065, or 2 or C or higher, NEN-EN 13501-1. The material must not give off large quantities of smoke and/or gases or vapours that are harmful to health as per NEN 6060. The optical smoke density of these materials may not exceed 5.4 m-1, as per NEN 6066: 1991/A1:1997 for fire propagation class 1. The optical smoke density of these materials may not exceed 2.2 m-1, as per NEN 6066: 1991/A1:1997 for fire propagation class 2. Alternatively, the material must fulfil the requirements of smoke class s2, determined as per NEN-EN 13501-1. In case of horizontal applications, the material must comply with d0, i.e. no formation of burning drops.
8 metal foil material	The material may be used without special treatment. In case of horizontal applications, the material must comply with d0, i.e. no formation of burning drops.

stand construction material	application options
9 plastic foil material	The production process must have made the material to be not easily flammable, and the material must meet the requirements of fire propagation class NEN 6065 class 1 or 2 or class A or B, cf. NEN-EN 13501-1. The foil material must never be used in exhibition stands, or as covering material or ceiling of a stand. Combustible foil material shall only be permissible provided the material is fully bonded to a substrate of inflammable material or to any of the materials mentioned in Clause 41 in this document, with a non-combustible (water-based) adhesive.
10 paper products such as crepe paper, decorations, etc.	The material must have been rendered to be not easily flammable by (impregnation) treatment and must meet the requirements of the fire propagation class NEN 6065 class 1 or 2 or class A or B, cf. NEN-EN 13501-1. A valid certificate substantiating the above must be present at the exhibition.
11 bales of straw, hay, cardboard, reed, raffia, etc.	The material must have been rendered to be not easily flammable by (impregnation) treatment and must meet the requirements of the fire propagation class NEN 6065 class 1 or 2 or class A or B, cf. NEN-EN 13501-1. Explanation: The material must have been immersed in an impregnating agent for at least 2 x 24 hours in order to comply with the requirements laid down. A valid certificate substantiating the above must be present at the exhibition.

12	textiles made from natural fibres (cotton, linen, jute, wool, etc.).	Or material must have been made to be not easily flammable by (impregnation) treatment and must meet the requirements of the fire propagation class NEN 6065 class 1 or 2 or class A or B, cf. NEN-EN 13501-1. A valid certificate substantiating the above must be present at the exhibition.
13	textiles made from synthetic fibres	The production process must have made the material to be not easily flammable, and must meet the requirements of the fire propagation class NEN 6065 class 1 or 2 or class A or B, cf. NEN-EN 13501-1. A valid certificate substantiating the above must be present at the exhibition.

## annex H.2

### 1 Cooking, frying and roasting

1.1 Cooking, frying and roasting using electricity is permissible, subject to the fulfilment of the following condition:

- a. there are suitable lids for the pots and pans in use, in the immediate vicinity of the consuming appliance;
- b. the electrical installation conforms to NEN 1010;
- c. the consuming appliance is KEMA/CE tested;
- d. deep-frying fat and edible oils are used in thermally protected equipment
- e. electrical cords, plugs and appliances are in good condition;
- f. the consuming appliance is stably supported, so that it does not tip over or overturn;
- g. the consuming appliance is located at least 1.5 m away from combustible materials;
- h. the support surface for frying and roasting appliances shall be non-combustible up to a minimum distance of 100 mm outside the appliances

1.2 it is prohibited to fry, roast or cook with solid fuel.

frying, roasting and cooking with gas are only permitted provided the requirements as per Clause 5.2 are met.

1.4 the design of a frying system (oil pan) must be such that oil cannot enter the combustion chamber,

### 2. Mobile cooking stalls in general

2.1 mobile cooking stalls shall be set up at a distance of at least 5 m from surrounding buildings, unless the wall in question has been designed to be fire-resistant for at least 30 minutes

2.2 every mobile cooking stall must have a mobile fire extinguisher with a minimum capacity of 5 kg or 5 litres of extinguishing agent that has been inspected within the required time.

2.3 no flammable parts of the mobile cooking stall and no flammable goods shall be present within a distance of 300 mm from the exhaust duct for cooking fumes or combustion gases, unless fire-resistant cladding is used.

2.4 combustion gases from cooking and roasting appliances shall be discharged to the outside through exhaust ducts made of non-combustible and heat-resistant material.

2.5 the use of one pipe for the discharge of cooking fumes and/or vapours and combustion gases shall be permissible, provided that the temperature of the combustion gases measured at the meeting point of the two outlets do not exceed a temperature of 200 °C.

2.6 cooking vapours and fumes must be directly collected and removed with the help of a non-combustible extraction device installed above the frying pans, with an exhaust duct connected to it, which shall extend above the roof of the frying trolley. Each exhaust duct and extractor hood shall be made of non-combustible, heat-resistant material.

## **6. Heating**

6.1 Burners or equivalent equipment for keeping food warm shall be permitted provided that such food warming is kept under constant supervision.

6.2 The heaters that shall be used for heating the structure with the use of equipment other than equipment permanently installed in the structure, shall have heat exchangers that are installed outside the structure.

6.3 Gas or liquid fired appliances for heating in a tent are only permissible if the tent is opened on 3 sides.

6.4 Each heating appliance shall have a free clearance space of at least 1.3 metres above the appliance.

6.5 The use of an electric heating appliance is permissible provided that it is sufficiently shielded from the public, and protected against falling over.