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# Order of day/month/2007 approving safety rules to counter the risks of fire and panic in stations

The Minister of State, Minister for the Interior and Regional Planning, the Minister for Transport, Public Works, Tourism and Maritime Affairs,

Having regard to Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services, and in particular Notification No **XXX**,

Having regard to the Construction and Housing Code, in particular Articles R. 123-12 and R. 123-17 thereof;

Having regard to the Tourism Code, in particular Article L. 342-7 thereof,

Having regard to Decree No 2003-425 of 9 May 2003 on the safety of public guided transport,

Having regard to Decree No 2006-1534 of 6 December 2006 implementing Articles 1, 1(1) and 1(2) of Law No 97-135 of 13 February 1997 on the creation of the "*Réseau Ferré de France*" (French Rail Network) establishment for the renewal of rail transportation,

Having regard to Decree No 2006-1279 of 19 October 2006 on the safety of railway traffic and the interoperability of the rail system,

Having regard to the amended Order of 25 June 1980 adopting the general provisions of the safety regulation to counter the risks of fire and panic in establishments open to the public,

Having regard to the opinion of the Central Safety Committee,

# HEREBY ORDER

# ARTICLE 1

The safety rules to counter the risks of fire and panic applicable to stations accessible to the public and the procedures for the inspection thereof annexed to this Decree and laid down in accordance with Articles R. 123-12 and R. 123-17 of the Construction and Housing Code are hereby approved.

# ARTICLE 2

The scope of this Order shall apply to establishments open to the public designated for rail transport, guided transport or transport carried out by mountain lifts referred to in Article L. 342-7 of the Tourism Code, and fitted specially for this purpose, including areas situated within the establishments, open to the public and intended for non-railway use.

# ARTICLE 3

The competent safety committee shall, in all cases, be the departmental safety and accessibility advisory committee (*French abbreviation - CCDSA*) established by Decree No 95-260 of 8 March 1995 (amended).

A fire safety inspection body, consisting of personnel specialising in protection against the risks of fire and panic, may, upon the request of the transport organisation authority concerned, be created within companies responsible for the operation of all or part of a public guided transport network by joint Order of the Minister for Transport and the Minister for the Interior made following the opinion of the Central Safety Committee.

The holder of one of the contracts mentioned in Article 1 of the Decree of 6 December 2006 above may also ask the Ministers for the Interior and for Transport for the creation of a fire safety inspection body. The Ministers shall come to a decision on the request following the opinion of the Central Safety Committee.

The safety inspection bodies already created within the SNCF and RATP shall remain in force, in implementation of Article 5 of the Order of 20 February 1983 and for which implementation has been approved by the Minister for Transport.

The representatives of these bodies shall be members of the CCDSA by right, for the matters concerning them.

# ARTICLE 4

The Prefect and, in Paris, the Police Prefect, shall guarantee that these provisions are implemented in order to guarantee safety to counter the risks of fire and panic in stations.

# ARTICLE 5

The Director General for Maritime Affairs and Transport and the Director for Defence and Public Safety shall be responsible, each for their own part, for the implementation of this Order and the annex thereof, which shall be published in the Official Gazette of the French Republic.

# ARTICLE 6

The Order of 20 February 1983 is hereby repealed.

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# CHAPTER VII GA TYPE ESTABLISHMENTS (Stations accessible to the public)

## Safety rules to counter the risks of fire and panic in stations

# PART I Provisions applicable to all GA type establishments

# SECTION I General Information

## Article GA 1

Establishments concerned

The provisions of book I of the Safety Rules to counter the risks of fire and panic in establishments open to the public, hereinafter referred to as the safety regulation, shall apply. This chapter shall lay down the provisions applicable to stations and the methods for the inspection thereof.

The provisions of book II of the Safety Rules shall not apply other than those relating to articles expressly mentioned in the remainder of this chapter.

The provisions of this chapter shall apply to the premises and areas of establishments open to the public designated for rail transport, guided transport or transport carried out by mountain lifts mentioned in Article L. 342-7 of the Tourism Code, and fitted specially for this purpose. These premises and areas are located within the buildings, enclosed areas and on platforms accessible to the public of the entire guided transport system.

The provisions of this chapter relating to the safety rules and inspection procedures shall apply to establishments to be constructed, new installations and modifications and outfitting carried out in existing establishments.

Only overground stations with a public capacity of less than 200 persons, calculated pursuant to the provisions of Article GA 2 below, shall be classified in category 5. They shall be subject to the provisions of parts I and III of this chapter.

Sleeping areas in stations are forbidden.

# Article GA 2

Classification of GA type establishments – Calculation of capacity

The categories of stations shall be determined pursuant to the provisions of Article R. 123-19 of the Construction and Housing Code.

2.1.1. General information relating to the calculation of capacity:

There are several criteria allowing the public capacity to be determined in order to carry out the classification of GA type establishments. These concern the areas specified in Article GA 5 and shall be examined according to:

- the character of the areas (railway operation or not);
- the function of the areas ("gathers", "gathers and passes through", "passes through");
- the location of the areas ("overground part", "underground part");
- the type of activity that may be carried out in these areas;
- the surface area of areas.

2.2. : Procedures for the calculation of public capacity:

- 2.2.1. Railway operation type areas:
- 2.2.1.1. Areas where the public gathers:
  - one person per square metre of the surface area of the area made available to the public, after deduction of the surface area occupied by fixed fittings and large furniture;
  - for areas under controlled access (toilets, left-luggage offices), the capacity held shall be that stated by the petitioner.
- 2.2.1.2. Areas where the public gathers and passes through:
  - for the overground parts, one person per 2 m<sup>2</sup> of the surface area of the area available for public use, after deduction of the surface area occupied by fixed fittings and furniture, the platforms not being part of any calculation of capacity;
  - for the underground parts, the capacity shall be determined by the petitioner;
- 2.2.1.3. Areas which the public passes through:
  - these areas shall not give rise to any calculation of capacity.
- 2.3. Non-railway operation type areas:
- 2.3.1. Areas of a commercial, social or administrative nature of "counter" type:
  - one person per linear metre of the counter whatever type of activity is carried out in the area.

2.3.2. Areas of a commercial, social or administrative nature of "open" and "closed" type:

- for areas used by shops, two persons per m<sup>2</sup> on the third of the surface area of parts of the area accessible to the public, whichever level this may be on;
- for areas used for another activity, the capacity shall be determined in accordance with the specific provisions of the safety rules applicable to these activities;
- for areas for which the usage of premises is not yet known at the time the construction permit or works authorisation is applied for: two persons per m<sup>2</sup> over the third of the surface area whichever level this may be on.
- 2.4. Specific case of mixed stations.

The capacity to be taken into account for the classification shall be that determined pursuant to the provisions above for the overground part to which the capacity of the underground part passing through the overground part shall be added; this capacity shall be justified by the petitioner.

2.5. Areas for work use.

In stations belonging to the first group, for each area, the capacity of staff not having independent passageways must be added to the public capacity.

2.6. Document on the capacity of the establishment.

The calculation of the public capacity defining the category of establishment shall be set out in a specific document, drafted by the petitioner, giving details of the type of activity and operation, annexed to the safety notice.

# Article GA 3

# Definitions

3.1. Station:

Buildings of a guided transport system, or of a mountain lift, principally intended for the reception, transit, boarding and alighting of passengers.

# 3.1.1. Underground stations:

Underground stations shall be those for which the areas specified in Article GA 5 simultaneously meet the three following conditions:

- they shall be located underneath the reference level specified in paragraph 3.5 below;
- they shall have at least half the surface area of each longitudinal vertical surface not exposed to the open air;
- they shall be completely covered.

3.1.2. Overground or mixed stations:

Other stations which do not comply with the provisions of paragraph 3.1.1. above, shall be either overground or mixed if they have an overground part and underground part.

3.1.3. Complex station:

This is a station having a fire free area specified in paragraph 3.7 below not located in the open air.

3.2. Railway operation type areas:

These are areas which are vital to the operation, either directly or indirectly within the framework of the operation of the transport service.

3.3. Non-railway operation type areas:

These are areas not vital to the operation of the railway. These areas may be of a commercial, social or administrative nature.

3.4. Centralised surveillance of fire safety:

Material and human means enabling the remote command, control and surveillance of fire safety installations in stations to be guaranteed.

3.5. Reference level:

The reference level of a GA type establishment is that of the public road network serving the address of the establishment useable by the vehicles of the public emergency and fire-fighting services. When a station has several addresses, that or those used to define the reference level(s) shall be fixed in the light of the opinion of the safety committee.

3.6. Fire-affected area:

Volume of the station inside of which the public is directly subject to the effects of heat and smoke generated by a fire having broken out therein.

3.7. Fire free area:

Volume accessible to the public and located in the open air.

A volume which complies with the following provisions shall also be considered to be a "fire free area":

- the entire public is sheltered from the effects of heat and smoke generated by a fire;
- it is possible to reach the exterior from at least two passageways.

# Article GA 4

Rail activities

# 4.1. Types of rail activity:

The rail activity must be taken into account for the determination of the fire resistance rating of insulating slabs with a third party on top, and, in the case of underground stations having several basement levels accessible to the public, the principle structures thereof and the slabs located immediately above the tracks.

Rail activities allow two types of station to be defined:

- stations through which only passengers pass and in which only passenger trains pass through and stop. Other activities carried out on service tracks shall be solely linked to passenger trains (cleaning, inspections, refuelling, etc.);
- stations for passengers through which goods trains also pass.

4.2. Justification of the activity:

The activity shall be justified by a statement from the operator, attached to the application for the construction permit or works authorisation. By default, it shall be the "passengers plus goods" activity type which shall be taken into consideration for the determination of the fire resistance rating of the structures in question.

Any amendment to the operating conditions having, as a result, the shift from an exclusively passenger-based activity to an activity for the passage of passenger and goods trains as indicated above must be subject to a statement to the Prefect who may impose, following the opinion of the competent safety committee, the additional measures necessary in the light of this new situation.

# Article GA 5

# Areas

There are several publicly-accessible areas inside stations:

5.1. Railway operation type areas:

- Areas where the public gathers: sales locations, information and reservations centres, gift stores, waiting rooms, bathrooms etc.;
- Areas through which the public passes: the corridors, underground passageways, footbridges, fixed stairs or escalators, moving walkways and lifts etc.;
- Areas where the public gathers and passes through: concourses, halls with ticket booths (1), rooms for connecting trains, left-luggage lockers, transverse platforms (2).

(1) Access corridors equipped solely with ticket machines shall be considered to be areas through which the public passes.

(2) Platforms positioned at a right angle to tracks existing in stations at the end of railway lines when they are part of a building and not directly open to the exterior.

# 5.2. Non-railway operation type areas:

Areas of a commercial, social or administrative nature: these areas shall be of three types:

- counter: Area into which the public may not enter.
- open: Area into which the public may enter and in which:
  - the cumulative length of the façades of the area giving onto the internal thoroughfares of the station, must be at least equal to a quarter of its perimeter;
  - at least half of the total number of façades giving onto the internal thoroughfares of the station shall be open by means of free openings of a minimum width of 1.40 metres;
  - the maximum distance to be travelled by the public to find a main thoroughfare shall be less than 10 metres.
- Closed: Area into which the public may enter and in which the façades giving onto the thoroughfares may be closed by doors or which do not strictly meet the definition of open area above.

# SECTION II Inspection procedures

# Sub-Section I Inspection of stations

# Article GA 6

## *Competent committee*

The competent safety committee shall, in all cases, be the departmental safety and accessibility advisory committee hereinafter referred to as the "safety committee".

Furthermore, for category 5 establishments, the inspection shall be carried out by the fire safety inspection bodies specified in Article GA7 below when these exist following studies up to operation.

# Article GA 7

## *Fire safety inspection bodies*

The implementation of these fire safety inspection bodies shall be decided on by joint Order of the Minister for the Interior and the Minister responsible for Transport following the opinion of the Central Safety Committee. The representatives of these bodies shall be members of the Safety Committee by right, for the matters concerning them.

To this end, they shall participate in the work of this Committee, in particular at the time of the examination of construction or planning projects and the acceptance inspection prior to the opening to the public.

These bodies shall be directly connected to the Directorate General of each of these companies, and, within this, they must be independent of a Directorate, or a service or any other body responsible for studies, works or the management of installations covered by this text.

# Article GA 8

## Safety file

The file referred to in Article R. 123-24 of the Construction and Housing Code must be supplemented by:

- a specific notice, drafted by the petitioner, giving details of the methods for calculating the public capacity held by type of area, activity and operation;

- the file referred to in Article GA 46.

The detailed documents concerning the technical installations referred to in Article R. 123-25 of the Construction and Housing Code must be able to be supplied by the manufacturer or operator before the start of works involving these installations; they shall subsequently be sent to the Safety Committee.

The chapters of Title 1 of Book II of the Safety Rules shall lay down the list of these documents for each of the installations.

# Article GA 9

*Visit prior to the opening to the public of GA type establishments in categories 1, 2, 3 and 4.* 

The application for the authorisation to open accompanied by the opinion of the body referred to in Article GA 7 shall be sent to the Prefect who shall then conduct the visit prior to the opening to the public by the Safety Committee.

The applicant must be able to send the Safety Committee the files containing detailed information on the technical installations updated after having carried out works and the reports from approved bodies responsible for the technical verifications laid down by the Safety Rules.

Notwithstanding the first paragraph of this Article, the visit prior to the opening to the public shall be carried out by the bodies referred to in Article GA 7 for areas created, fitted out or modified, and of which the total surface area is less than:

- $300 \text{ m}^2$  in superstructure;
- $100 \text{ m}^2$  in infrastructure.

The report for this visit shall be drawn up and then sent to the Prefect.

The opening authorisations must be annexed to the Safety Register of the establishment.

# Article GA 10

## *Periodic inspection visits* of *GA* type establishments in categories 1, 2, 3 and 4.

10.1. Organisation of periodic inspection visits:

The periodic visits to stations shall be carried out by the bodies referred to in Article GA 7, where these exist. The report from their visits shall be sent to the Prefect.

The establishment may also be subject to a specific examination by the Safety Committee, in particular following an unfavourable opinion issued by a body referred to in Article GA7. When the bodies referred to in Article GA 7 have not been established, the Safety Committee shall conduct the visits to the establishments of the 1<sup>st</sup> group.

10.2. Frequency of station visits:

Inspection visits for establishments currently in operation shall be carried out at the following frequencies:

- two years for category 1 and 2 establishments;
- three years for category 3 and 4 establishments.

# **Sub-Section II. - Technical verifications** in GA type establishments in categories 1, 2, 3 and 4.

# Article GA 11

Regulatory technical verifications

The regulatory technical verifications laid down by Article R 123-43 of the Construction and Housing Code must be carried out either by bodies approved by the Minster of the Interior or by competent technicians.

# Article GA 12

*Implementation procedures* 

The provisions relating to technical verifications and maintenance shall apply to all establishments, whether they are to be constructed, modified or are already in existence.

12.1. Regulatory technical verifications guaranteed by approved bodies:

Technical verifications must be carried out by approved bodies in category 1, 2, 3 and 4 establishments:

in the design/construction phase, for all works subject to the construction permit and the authorisation laid down in Article R. 123-23 of the Construction and Housing Code;
in the operation phase, when the provisions of this chapter thus stipulate.

The operator of a category 1, 2, 3 or 4 establishment may be sent notice, following the opinion of the Safety Committee or the bodies referred to in Article GA 7, that they must have their technical verifications carried out by approved persons or bodies when serious non-conformities have been discovered during operation.

12.2. Technical verifications provided by competent technicians:

Apart from in the cases laid down in the paragraph above, the technical verifications stipulated in this chapter shall be carried out by competent technicians under the responsibility of the operator.

# Article GA 13

Technical verification reports

Technical verification reports shall be drawn up pursuant to the provisions laid down in Articles GE6 to GE10 of the Safety Rules.

The operator must make the technical verification reports available to the Safety Committee and the bodies referred to in Article GA 7.

# **PART II** Provisions applicable to GA type establishments in the first four categories

# SECTION I CONSTRUCTION PROVISIONS

# Article GA 14

Design and service

Each station must be able to be served, from the reference level, by at least one track which can be permanently used by the vehicles of the public emergency and fire-fighting services within the meaning of Article CO 2(1).

This provision shall not preclude the implementation of more restrictive regulatory measures by way of activities regrouped within an establishment.

## Article GA 15 Burial

Stations may consist of several levels of infrastructure accessible to the public and their lowest point may be more than 6 metres below the reference level. When, in exceptional circumstances, the parts of a GA type establishment accessible to the public are located more than 30 metres beneath the reference level, specific measures may be laid down in addition to these rules.

# Article GA 16

# Fire resistance of structures

16.1. Object

The main elements of the structures must present fire-resistance qualities so that the stability of the building is maintained, the rapid spread of flames prevented in the case of fire for the necessary amount of time for an alarm to be sounded and for occupants of the establishment and of neighbouring premises possibly located within the same building to be evacuated, to facilitate the intervention of fire-fighters and to allow the functions of the establishment to be restored.

The station activity specified in Article GA 4 shall be a criterion taken into consideration for the determination of the fire resistance requirement of slabs located directly above tracks.

16.2. Determination of the fire resistance rating of structures.

16.2.1. Overground stations

16.2.1.1. Principal elements of the structures: The provisions of Articles CO 12 to CO 14 shall apply.

16.2.1.2. Slabs located immediately above railway tracks, roadways or waterways: Above railway tracks, the provisions laid down in paragraph 16.2.2.2. shall apply. Above roadways or waterways, the slabs shall be 2 hour fire-break or REI 120.

16.2.2. Underground stations and underground parts of mixed stations

16.2.2.1. Principal elements of the structures:

The principal elements of the structures of underground stations and the underground parts of mixed stations shall be fire stable for 2 hours or REI 120.

16.2.2.2. Slabs located immediately above underground tracks and platforms:

When the station tracks are used:

- for an exclusively passenger-based activity, the slabs shall be 2 hour fire-break or REI 120;
- for a passenger and goods-based activity, the slabs shall be 3 hour fire-break or REI 180;
- 16.3. Specific cases:

In the case whereby the file presented for examination by the Safety Committee mentions different fire resistance ratings within the same establishment, a document with graphics justifying these different ratings shall be attached to the safety notice.

16.4. Fire resistance of other construction components not being principal structural elements:

The principal structures of works and the floors over which the public is likely to evacuate (for example: footbridge, passages, stairs leading to these etc.) must have a minimum fire stability of half an hour or R 30. In this regard, no store representing a significant calorific potential may be positioned underneath a footbridge, passage or stairs leading to these.

# Article GA 17

## Insulation in relation to third parties

17.1. Object and general information

# 17.1.1. Object

Establishments of the current type must be insulated from any building or premises occupied by a third party in order to prevent the effects of a fire rapidly spreading from one to the other. With regard to this situation between GA type establishments themselves, however, the provisions of paragraph 17.3 shall apply.

17.1.2. General information:

When a GA type establishment houses an operation not insulated against specific risks, the GA type establishment shall be classed as at specific risk.

17.2. Insulation in relation to third parties which are neither of GA nor PS type.

In the assumption that more restrictive regulatory provisions are not applied, the following

insulating conditions shall apply:

17.2.1. Opposite insulation.

The provisions of Article CO 8 shall apply to the insulation of a GA type establishment located opposite a third party and separated by an open space of less than 8 metres.

These provisions shall not apply, however, to shafts vital to the operation of an existing underground station subject to an examination on an individual basis.

17.2.2. Lateral insulation

The provisions of Article CO 7 shall apply to the insulation of a GA type establishment from an adjacent lateral third party.

17.2.3. Insulation in relation to a third party positioned above.

17.2.3.1 Overground station or overground part of a mixed station The provisions of Article CO 9 shall apply to the insulation of the overground parts of a GA type establishment with a third party above.

17.2.3.2. Underground station or underground part of a mixed station. The upper insulation slabs of the station shall be:

2 hour fire-break or REI 120 if they are:

- not surmounted by structures. This provision shall not apply to structures situated immediately above tracks whose dimension along the longitudinal axis of these is less than 20 metres (bridges, footbridges etc.);
- surmounted by a structure of which the floor of the last level is situated at a distance of 8 metres or less in relation to the reference level for stations through which goods trains pass;
- surmounted by a structure of which the floor of the last level is situated at a distance of 28 metres or less in relation to the reference level for stations through which solely passenger trains pass;

3 hour fire-break or REI 180 if they are:

- surmounted by a class 4 residential building or a high rise building, for stations through which solely passenger trains pass;
- surmounted by a structure of which the floor of the last level is situated at a distance of 28 metres maximum and more than 8 metres in relation to the reference level for stations through which goods trains also pass.

4 hour fire-break or REI 240 if they are:

- surmounted by a class 4 residential building or a high rise building, for stations through which goods trains also pass;

17.2.3.3. Façades overlooking railway tracks:

Façades situated directly perpendicular to areas normally reserved for the parking of railway materials must present the following characteristics over a vertical distance of 8 metres in relation to the maximum level reached by the roof of vehicles:

- flame resistant to 1 hour for stations through which solely passenger trains pass;
- 1 hour fire-break for stations through which goods trains also pass.

This provision may be replaced through the installation of construction components:

- flame resistant to 1 hour over a horizontal distance of 4 metres in relation to the bare part of the façade, for stations through which solely passenger trains pass;
- 1 hour fire-break over a horizontal distance of 4 metres in relation to the bare part of the façade for stations through which goods trains also pass.

# 17.2.4. Crossing devices

# 17.2.4.1. Crossing devices for a separating wall

These crossings shall be authorised, except in cases in which legislation applicable to the various activities of third parties so forbids. They may not be used as normal passageways for one or the other of the establishments concerned.

They must be made using a crossing device providing a 2 hour fire-break or EI 120.

The crossing may be made, however, by means of a 1 hour fire-break doorset fitted with a door closer or EI 60-C in the following cases:

- premises used for the housing of personnel;
- additional passageways of a third-party establishment.

17.2.4.2. Crossing devices for an insulating open space

These crossings shall be authorised pursuant to respect for the provisions of Article CO 10(2).

17.3. Insulation between several GA type establishments or similar.

No insulation condition shall be required between GA type establishments. This provision shall extend to conditions relating to insulation with establishments whose operation is similar to that of GA type establishments such as: bus stations, airports, etc.

By way of compensation, if two GA type establishments or similar are established on the same site without insulation, surveillance must be guaranteed pursuant to the provisions of Article GA 40.

17.4. Insulation in relation to a car park.

Possible intercommunications between a GA type establishment and a PS type establishment shall be subject to the provisions of Article PS 8(4).

The crossing devices linking a car park and a station located on different levels may include stairs, lifts, escalators or moving walkways.

Possible insulation locks and stairs opening onto car parks may not be considered as normal passageways within the meaning of the Safety Rules for any of the establishments concerned.

# Article GA 18

# Internal distribution

# 18.1. Object and general information

In establishments of the present type, the following provisions must be respected in order to limit the spread of fire and smoke inside the building.

For this purpose, certain areas, when they form premises ("open" or "closed" type areas), must be insulated from the rest of the establishment by walls having adapted fire resistance characteristics.

18.2. Rules for insulation between premises

18.2.1. Railway operation type premises

18.2.1.1. Accessible to the public.

No fire resistance requirement shall be placed on the walls and doors which may separate these premises (for example between the station concourse and the waiting room).

The same shall be the case for walls and doors which may be located inside these premises.

18.2.1.2. Not accessible to the public

These premises must be insulated from the areas accessible to the public by 1 hour fire-break or REI 60 or EI 60 high and/or low walls and floors. The doorsets shall be half hour flame resistant and fitted with a door closer or E 30-C. However, due to constraints connected with the activity and following the opinion of the Safety Committee or the inspection bodies referred to in Article GA7, it shall be acceptable for areas vital to the operation not to be insulated from zones accessible to the public. In the safety file provided for in Article GA 8, a plan must mark out the location of these fire resistant walls.

This provision shall not provide any exemption from respect for the provisions laid down in Article GA 19 relating to specific-risk premises.

18.2.2. Areas of a commercial, social or administrative nature

18.2.2.1. Provisions common to all these premises:

The insulation of premises of a commercial, social or administrative nature from each other and the insulation of these premises from premises of a railway operation type shall be carried out as follows:

- the façade walls and ceilings of these premises must be made of fire-resistant materials;
- the parts of these premises not accessible to the public shall be separated from other volumes by 1 hour fire-break or REI 60 or EI 60 high walls and floors. The doorsets shall be half hour flame resistant and fitted with a door closer or E 30-C.

When these premises are grouped together over a total surface area of over 300 m2, they must be separated from each other by walls made of incombustible materials. These walls must be fire-break to a degree equal to the fire stability required for the structure of the station with a half hour minimum. The ceiling of these operations must be fire-break to a degree equal to that of the walls, with a maximum of 2 hours, except when the ratio between the average height of the railway operation type room housing this and the height of the ceiling is equal to or greater than 3.

When these premises have a total unitary area of over 300 m2, they shall be subject to the regulatory provisions for the particular type concerning them.

18.2.2.2. Premises located underneath the reference level:

18.2.2.1. Provisions applicable up to at least 6 metres from the reference level

Areas of "open", "counter" and "closed" type shall be authorised. However, the unitary area of a "counter" and "open" type area must be less than  $300 \text{ m}^2$  and, additionally,  $100 \text{ m}^2$  for a "closed" type area.

"Open" or "counter" type areas shall be constructed in such a way that smoke from a fire breaking out there shall not rapidly enter adjacent volumes. To this end, they shall have a smoke curtain with a drop of at least 50 centimetres in order to counteract the possible spread of smoke. This smoke curtain may be constructed in accordance with one of the following methods:

- structural elements (roofing, girders, walls);
- fixed, rigid or flexible screens, with quarter hour fire stability or DH 30 and made from category B-s3, d0 materials;
- DAS mobile, rigid or flexible screens, with quarter hour fire stability or DH 30 and made from category B-s3, d0 materials;

Each area of a commercial, social or administrative nature shall be insulated from adjacent volumes by 1 hour fire-break or REI 60 or EI 60 walls and floors supported by a 1 hour fire-stable or R60 structure.

However, façades, whether open or made of M0 or A2-s2, d0 materials opening onto railway operation type premises in which the public gathers and passes through or simply passes through, shall be authorised.

By way of derogation to the previous provisions, several adjoining premises of a commercial, social or administrative nature, for which the sum of the surface areas is less than 300 m2, may have no insulation offering any degree of fire-break between them.

18.2.2.2. Provisions applicable to premises having an undergrounding of over 6 metres in relation to the reference level.

In addition to the provisions laid down in Article 18.2.2.2.1, the conditions for the establishment of premises "of a commercial, social or administrative nature" having an undergrounding of over 6 metres in relation to the reference level shall be the following:

- premises must have a unitary area of less than  $100m^2$ ;
- each level of the establishment may only have a maximum of 300m<sup>2</sup> surface area dedicated to these premises;
- specific risk activities within the meaning of Article CO 6(2) of the Safety Rules shall be forbidden.

The following activities are also forbidden:

- libraries, documentation or archiving centres, dance halls and gaming halls,
- shops not equipped with an automatic extinguisher system,
- exhibition halls not equipped with an automatic extinguisher system,
- any activity for which the operating methods or the nature of goods stored does not allow, following the opinion of the Safety Committee, the implementation of effective protection measures for adjacent railway operation type areas.

# Article GA 19

## Specific-risk premises

Installations classified for the protection of the environment shall only be permitted in stations if they are vital to the operation thereof.

The chapters relating to technical installations of the general provisions of the safety rules shall lay down the list of specific-risk premises not accessible to the public, classified in accordance with medium risks or significant risks to which the general provisions of Article CO 28 shall apply. This list may possibly be supplemented following the opinion of the Safety Committee or the inspection bodies referred to in Article GA7 in each particular case.

Furthermore, the following specific-risk premises shall be classified as follows:

- medium-risk premises:
  - premises with a surface area of over 150 m<sup>2</sup> in which luggage is stored;

- archives, premises for the storage of papers and reserves when the volume is between 30 and  $300 \text{ m}^3$ ;

- premises for the handling and storage of packaging or waste up to 100 m<sup>3</sup>;
- reserves connected with areas of a commercial, social or administrative nature;
- stores containing 10 to 150 litres of inflammable liquids.
- premises at significant risk:

- archives, premises for the storage of papers and reserves when the volume is over 300  $m^3$ ;

- premises for the handling and storage of packaging or waste when the volume is greater than 100 m<sup>3</sup>;
- stores containing over 150 litres of inflammable liquids.

The occupation of premises at significant risk must be reserved for a single use.

# Article GA 20

Roof

The provisions of this Article aim to preserve the roof of one or more buildings in an overground or mixed station from the effects of a fire coming from a third building.

The provisions of Articles CO7(2) and (3), CO17 and CO 18 of the safety rules shall apply.

# Article GA 21

# Façades

In order to prevent the propagation of fire through the façades of a building of an overground or mixed station, the provisions of Articles CO 19 to CO 22 of the Safety Rules shall apply.

# **Article GA 22** *Ducts and shafts*

The provisions of Book II, Title I, Chapter II, Section VIII of the safety rules shall apply, in that relating to ducts and shafts.

The location of ducts and shafts must appear in the file of plans referred to in Article GA8(2).

# **SECTION II**

# Passageways

# Article GA 23

Dimensions of passageways

23.1. General information

With the exception of premises in which the public gathers, the number and the dimensions of passageways shall be calculated in accordance with the theoretical capacity laid down in Section 23.2 below, the traffic speed and the flow rates laid down in the table below.

This theoretical capacity shall be calculated pursuant to the provisions of Article GA 2, increased, when the platforms are underground, by the number of passengers who may be on board trains likely to the present at the platform at the time of evacuation.

The theoretical capacity must be subject to a statement attached to the file specified in Article GA 8 including the hypotheses used and details of the calculations.

The calculation of the time to transfer the public to a fire free area must be the object of a calculations booklet. This booklet must specify the hypotheses used and the calculation method.

23.2. Railway operation type areas:

Only the capacity of areas in which the public gathers and the capacity of areas in which the public gathers and passes through shall be taken into account for the dimensioning of the passageways in railway operation type areas.

Articles CO 34, CO35(1) and CO 37 of the Safety Rules shall apply.

23.2.1. Areas where the public gathers:

The number and dimensions of passageways shall be calculated pursuant to the provisions of the Safety Rules. In implementation of Article CO 38(1), however, operations able to receive 20 to 50 persons may have only one 1.40 metre exit.

In implementation of Article CO 35(4), cul-de-sacs must be less than 20 metres.

23.2.2. Areas where the public gathers and passes through:

The number and dimensioning of the passageways in these areas must comply with the following provisions:

- an area where the public gathers and passes through must have at least two passageways; When the number of the public is greater than 200 persons, each normal passageway must measure at least 1.40 metres. During renovation works, however, the width of these passageways must only be 0.90 metres, following the opinion of the Safety Committee.
- the dimensioning of these passageways shall be defined in accordance with the theoretical capacity of the public called on to use them, of the traffic speed and flows as laid down in the tables below in such a way that the evacuation of the public to a fire free zone be

carried out in less than 10 minutes, except in special cases to be examined by the Safety Committee.

# 23.3. Areas of a commercial, social or administrative nature

The number and dimensions of the passageways shall be calculated in accordance with the provisions of Article CO 38(1). However, by way of derogation, operations able to accommodate 20 to 50 persons may only have a single 1.40 metre exit opening onto a railway operation type area.

The maximum distance measured following the axis of traffic the public must follow from any point in an area of a commercial, social or administrative nature to meet a railway operation type area or an exit to the outside must not exceed 20 metres.

Furthermore, in addition to the provisions of Article CO 38(1)(c), when an enclosed area of a commercial, social or administrative nature able to accommodate a capacity of over 50 persons opens onto an area where the public gathers and passes through, it must have:

- either an independent passageway at least directly leading to another railway operation type area;
- or an exit to the outside or a protected area. This passageway shall be defined as follows:
  - from 51 to 300 persons: an additional passageway as defined in Article CO 41;

- above 300 persons: a passageway with a minimum width of 1.40 metres. Counters, including the queue that these may generate, must not under any circumstances reduce the traffic area reserved for the public.

# 23.4. Staircases – Moving devices

Staircases which oblige the public to go down then go up (or go up then go down) shall be permitted as normal or additional staircases.

Escalators and moving walkways shall be permitted as evacuation methods, even when stopped. It shall be the responsibility of the operator to propose to the Safety Committee, in the elements of the file specified in Article GA 8, the provisions laid down during maintenance operations which allow all or part of the escalators and moving walkways to be used as evacuation methods. Staircases serving underground platforms may open onto a single room.

# REGIONAL OR NATIONAL GUIDED TRANSPORT SYSTEM

PASSAGEWAYS	FLOW	COMMENTS
	in passengers per minute	
Corridors and moving walkways	60	per metre of width
Fixed stairs		
- going up	40	per metre of width
- going down	50	per metre of width
Escalators		
- functioning escalators		
. 1 line of passengers	90	
. 2 lines of passengers	120	
- stopped escalators		
. 1 line of passengers		
- going up	30	
- going down	40	
. 2 lines of passengers		
- going up	40	
- going down	50	
Manually-controlled passages	50	
Passages controlled automatically after		
unlocking:		
- tripod passages	25	by passage
- open passages	50	by passage
Doors	50	by door leaf

Speeds to be taken into account:
on the flat: 1.00 metres/second
on steps: 0.40 metres/second

PASSAGEWAYS	FLOW In passengers per minute	COMMENTS
Fixed stairs		
- going up	60	per metre of width
- going down	75	per metre of width
Escalators		
. functioning escalators	120	For steps of less than one metre between stringboard the flow shall be reduced to 100
. stopped escalators		These flows shall apply
- going up	50	whatever the length of the staircase
- going down	60	
Manually-controlled passages	60	
Passages controlled automatically after unlocking:		
- tripod passages	30	by passage
- open passages	60	by passage
Doors	60	by door leaf

# URBAN OR SUBURBAN GUIDED TRANSPORT SYSTEM

Speeds to be taken into account

- on the flat: 1.40 metres/second

- on steps: 0.60 metres/second

# Article GA 24

Evacuation signage

Signage must be made pursuant to the provisions of Article CO 42. Signs presenting the indication "SORTIE" (EXIT) in white lettering on a blue background may also be accepted when the signage of passageways risks, due to its colours, its dimensions and its forms, giving rise to confusion with railway signage.

Under no circumstances must signs and equipment suspended above platforms give rise to a reduction in the visibility of exit signs.

# Article GA 25

Automatic doors, special doors

The use of special types of door not specified in Article CO 48 shall be subject to a favourable opinion from the Safety Committee. Automatic sliding or swing doors may be authorised inside buildings following the opinion of the bodies specified in Article GA 7 or, by default, the Safety Committee, by derogation to the provisions of Article CO 48(3). Revolving comb doors are prohibited in stations.

# Article GA 26

Devices for the control of entries and exits

Devices for the control of entries and exits must be able to be unlocked by the operator without delay.

The minimum width of a device for controlling entries and exits of tripod or open passage type shall be 0.55 metres.

At least one control line in each station must have a passage with a width of at least 1.05 metres, which may be unlocked by the operator without delay, allowing, in particular, access of the emergency services with their apparatus. If this passage consists of a barrier, the direction of opening of this barrier shall preferentially be directed in the usual direction of the exit.

# Section III Interior fittings

# Article GA 27

Fire behaviour of interior materials and fittings

# 27.1. General information

In order to avoid, in areas accessible to the public, the rapid development of a fire which may compromise the evacuation of the public and the intervention of the emergency services, the coatings, the decoration and the furniture must comply with the provisions of this Article with regard to the reaction to fire thereof.

27.2. Applicable provisions

The general provisions of the safety rules (articles AM1 to AM 19) shall apply outside of the cases expressly mentioned in the remainder of this section.

27.3 Provisions applicable below the reference level:

The provisions to be applied differ in accordance with the type of area.

27.3.1. Non-railway operation type areas

In addition, the following provisions shall apply:

- the wall coverings and the coverings of ceilings and suspended ceilings must be category M1 or B-s1, d0;
- floor coverings must be category M3 or C<sub>FL</sub>-s1;
- the materials making up the translucent or transparent parts incorporated into ceilings and suspended ceilings must be category M1 or B-s2, d0 and must not exceed 25 per cent of the surface area thereof.

27.3.2. Railway operation type areas

In addition to the provisions of paragraph GA 27.3.1, the following provisions shall apply:

a) Decorative elements in relief attached to walls or floating

These decorative elements shall be forbidden in areas in which the public gathers and passes through of which the average under ceiling height is less than 4 metres.

In other cases, in addition to the provisions of Articles AM9 and AM10, they must be category M1 and classified as F3 within the meaning of standard NF-F16-101.

b) Adhesive decorative elements

The decorative elements must be category M1 and classified as F2 within the meaning of standard NF-F16-101.

If their surface, however, covers no more than 25 per cent of the surface of ceilings, walls or the floor, they may be classified as at least F3 within the meaning of standard NF-F16-101.

c) Hangings, door curtains, curtains, net curtains

Hangings, door curtains, curtains and net curtains are forbidden in railway operation type areas where the public gathers and passes through, or passes through.

They may be authorised in railway operation type areas where the public gathers. In this case, in addition to Article AM 12, hangings and curtains must be of category M1 and at least classified as F3 within the meaning of standard NF-F16-101.

d) Large furniture, principal fittings, installation of light floors in superstructures

Large furniture, including cash desks, bars, lockers, etc., and major fittings, consisting of separating screens, boxes, shelving, bookcases, shelves, vertical display stands, filing cabinets, stands, etc., shall be prohibited in railway operation type areas through which the public passes.

It may be authorised in railway operation type areas where the public gathers and passes through or gathers. In this case, it must be category M1 and at least classified F2 within the meaning of standard NF-F16-101.

e) Seats

Seats shall be prohibited in railway operation type areas through which the public passes. This provision shall not apply to the rest areas specified in Article CO 37 which may be fitted in these areas.

In other cases, they must be constructed of category M1 materials and classified as F2 within the meaning of standard NF-F16-101, and solidly fixed.

27.4. Other interior fittings, decoration and decorative furniture:

The provisions to be applied shall be subject to an analysis on a case-by-case basis by the bodies referred to in Article GA 7, or, by default, by the Safety Committee.

27. 5. Provisions relating to automatic vending machines

Automatic vending machines shall be authorised in stations where they must occupy spaces in which they do not to obstruct or restrict traffic routes. They must be fixed to the floor or walls in a sufficiently rigid fashion so that they are not moved when pushed by a crowd. Their façade and walls accessible to the public must be M1.

27. 6. Special short-term fittings

Special short-term fittings may be authorised:

- during the use, on an exceptional basis, of premises within the framework of the application of Article GN 6 of the Safety Rules;
- for exhibits made in accordance with the procedures laid down in a specifications sheet and in an area approved by the Safety Committee or the inspection bodies referred to in Article GA7 where these exist.

# Section IV Smoke extraction

# Article GA 28

## General provisions relating to smoke extraction from stations

## 28.1. General information

The purpose of smoke extraction is to extract, at the start of a fire, a proportion of the smoke and combustion gases in order to maintain the passages intended for public evacuation in a useable state. This smoke extraction may also contribute to:

- limiting the spread of the fire;
- facilitating the intervention of the emergency services.

Overground stations and the overground parts of mixed stations must have smoke extracted therefrom by natural or mechanical methods.

Underground stations and the underground parts of mixed stations must have smoke extracted therefrom in accordance with the following rules:

- in stations having only one level of infrastructure, the smoke extraction may be by natural or mechanical methods;
- in stations having several levels of infrastructure, the smoke extraction of these levels must be exclusively mechanical.

# 28.2. Smoke extraction methods

Smoke extraction may be carried out either naturally or mechanically in accordance with one of the following methods:

- sweeping of the space needed to be kept in a state of functioning for the intake of new air and the evacuation of smoke;
- difference in pressure between the volume needing to be protected and the volume affected by fire in relative depression;
- combination of the two methods above.

28.3. Documents to be provided:

28.3.1. Smoke extraction solutions

The application for the construction permit or works authorisation must include a schematic representation of the smoke extraction solutions for the areas concerned.

28.3.2. Technical documents

At the time of works involving smoke extraction installations, the petitioner must supply the following technical documents for information purposes:

- a map, indicating the following:
  - areas for the evacuation of smoke and air ducts,
  - the layout of ventilation networks,
  - the location of smoke extraction ventilators,
  - the location of control devices,
- an explanatory note specifying the technical characteristics of the various equipment.

# 28.4. Different types of smoke extraction:

# 28.4.1. Natural smoke extraction:

For the overground parts: natural smoke extraction from GA type establishments shall be carried out on the basis of the provisions of Technical Instruction No 246 applicable to Class 1 establishments. Furthermore, the need for smoke extraction from volumes of a height greater than 15 metres must be subject to specific examination by the Safety Committee.

For the underground parts: this smoke extraction must include several contacts with the air outside, not including the passageways reserved for passengers, of a total useable cross-section at least equal to a fiftieth of the surface area of the areas from which smoke must be extracted. The smoke extraction ducts must comply with the provisions of Article 4.4 of Technical Instruction No 246.

28.4.2. Mechanical smoke extraction:

In the overground part, mechanical smoke extraction shall be carried out based on the provisions of Technical Instruction No 246 applied to Class 1 establishments.

In the underground part, mechanical smoke extraction shall in principle be carried out by zones defined on a case by case basis. In each zone, the minimum air change rate must be 15 volumes per hour.

Extraction fans located in the station or in the tympana of tunnels must be able to operate continuously for a period of one hour or  $F_{400}90$  with smoke at 400°C. Extraction fans installed in tunnels must be able to operate continuously for a period of at least two hours or  $F_{200}120$  with smoke at 200°C.

In order to create fire free areas, air curtains, insulation locks or any other equivalent device approved by the Safety Committee may be used in smoke brake lines.

28.5. Electricity supply for smoke extraction installations

28.5.1. Command and control device:

With regard to the power supply for command and control devices, the provisions of Article GA 33 shall apply.

28.5.2. Power supply for smoke extraction installations:

Power supplies must be made in such a way that the failure of a power source does not hinder the functioning of smoke extraction equipment.

When the power needed to supply smoke extraction engines is less than 10 kW, the safety electricity supply of smoke extraction engines in stations may consist of a branch directly from the main control board of the establishment alone. If the engine concerned is only used in case of fire, it must comply with the following provisions:

- it must remain operational for one hour;
- its insulation in relation to the earth must be monitored by a permanent insulation controller associated with a signalling device;
- its power supply shall be made under the conditions specified in Article EL 16(1).

# 28.6. Stoppage of general ventilation

Should the smoke extraction be activated, the general mechanical ventilation, with the exception of controlled mechanical ventilation (CMV), must be halted in the volume concerned, except if it contributes to smoke extraction. This interruption shall take place by stopping the fans.

# 28.7. Safety pneumatic power supply

In the case of a safety pneumatic power supply permanently in use or of limited use supplying the natural smoke extraction installations, the energy reserve of the safety power supply must be sufficient to be able to guarantee the safety of the two most restrictive smoke extraction zones.

# 28.8. Equipment:

Materials used in the manufacture of the smoke extraction installation must comply with the texts and standards in force. If this is not technically possible, the conformity of other materials and equipment may be recognised provided that it has been subject to an opinion from a competent recognised laboratory on the basis of provisions specified by the operator in a specific specifications sheet, in order that it can be verified that the level of safety proposed and the functionality described are equivalent to that of the applicable standard(s).

This opinion may be sent to the Safety Committee or to the bodies specified in Article GA7 where these exist.

# 28.9. Technical verifications:

Smoke extraction installations must be verified under the conditions laid down in Articles GA 11 to GA 13.

The frequency of the technical verifications for smoke extraction installations shall be yearly with regard to:

- the functioning of manual and automatic controls;
- the functioning of shutters, outlets and smoke extraction vents;
- the closure of mobile elements contributing to the smoke extraction function;
- the stoppage of the comfort air conditioning mentioned in paragraph 28.6;
- the functioning of smoke extraction ventilators.

The frequency of visits shall be 3 years for verifications concerning pressure, flow and speed measurements, in the case of mechanical smoke extraction.

# 28.10. Smoke extraction engineering

The use of smoke extraction engineering shall be authorised and must be subject to a note from a competent body recognised by the Ministry of the Interior. This note shall specify, following the agreement of the Safety Committee on the hypotheses and the scenario used:

- the calculation models and codes used;
- the assessment criteria;
- the conclusions regarding the assessment criteria.

Documents relating both to the smoke extraction engineering approach undertaken and this note must be laid down in the file specified in Article GA 46.

# Article GA 29

Smoke extraction from areas

29.1. Railway operation type areas where the public gathers

## 29.1.1 In the overground part

Areas on the ground floor and on storeys with a surface area greater than 300 square metres, and areas larger than 100 square metres with no opening to the outside must have smoke extraction.

## 29.1.2 In the underground part

Areas with a surface area greater than 100 square metres shall have smoke extracted in accordance with the following rules:

- either by a smoke extraction installation specific to the premises, whereby the fresh air may be provided by an opening into the adjacent area;
- or by ensuring that the site has smoke extracted by the smoke extraction system of the adjacent area (except for areas through which the public passes).

However, for existing establishments, if the implementation of these provisions entails major building works, it may be authorised, depending on the layout of the premises and the expected risk, for the risk to be dealt with locally by specific detection and safety provisions such as: zoning screens, fire detection, automatic extinguishers, or any other device approved by the safety committee.

29.2. Railway operation type areas through which the public passes:

Railway operation type areas through which the public passes shall have smoke extracted in accordance with the provisions of Article GA 28(1), (2), (3) and (4). However, areas through which the public passes shall not require a dedicated smoke extraction installation.

29.3. Railway operation type areas where the public gathers and passes through:

Railway operation type areas where the public gathers and passes through shall have smoke extracted in accordance with the provisions of Article GA 28(1), (2), (3) and (4).

29.4. Non-railway operation type areas:

The provisions in paragraph 29.1 shall apply.

29.5 Dealing with cavity spaces:

Where staircases, escalators, moving walkways and lifts are installed in unprotected volumes connecting several levels, a zoning screen as defined in Article GA 18.2.2.2.1 shall be provided on the underside of each cavity space in order to prevent the spread of smoke.

#### Section V

# Heating, ventilation, refrigeration and air-conditioning installations and installations for domestic hot water

# GA 30

## Applicable provisions

The provisions of Book II, Chapter V of the Safety Rules shall apply in stations. For those parts of the establishment more than 6 m below the reference level, the heating or

For those parts of the establishment more than 6 m below the reference level, the heating or refrigeration method must be described in the safety file laid down in Article GA 8.

In underground stations and the underground parts of mixed stations, more restrictive specific provisions may be imposed by the safety committee and the bodies defined in Article GA 7 where they exist.

# Section VI Combustible gas and liquefied hydrocarbon installations

# Article GA 31

## Applicable provisions

The provisions of Book II, Chapter VI of the Safety Rules shall apply. The distribution, use and storage of combustible gas shall be prohibited in the underground parts of stations more than six metres below the reference level.

Other more restrictive specific measures may be imposed by the safety committee or the bodies defined in Article GA 7 where they exist.

## Section VII Electrical installations

## Article GA 32

General information

Save specific provisions referred to below, Book II, Chapter VII of the Safety Rules shall apply, with the exception of the following articles: EL 4(2), (3) and (6), EL 11(1), EL 12, EL 16(4) and EL (2).

# 32.1 Documents to be provided

The documents to be provided in implementation of Article GA 8 shall include:

- the list of documents laid down in Article EL 2;
- the list of electrical installations contributing to the safety of the public in the establishment.

# 32.2 Definitions

Article EL 3 and MS 53(4) shall apply.

# 32.3 General rules

The establishment must not be crossed by electric cables that are not part of the transport system, unless they are placed in technical tracks protected by walls with at least one-hour fire break capacity and unless they have no connections along their course.

Installations serving areas not accessible to the public must be operated and protected separately from those serving areas accessible to the public, with the exception of electrical heating installations. However, in accordance with the provisions in Article EL 4(3), areas not accessible to the public with a surface area less than 100 square metres, located in a space that also has areas accessible to the public, may have circuits operated and protected by the same facilities.

The electrical installations in premises at specific risk as defined in Article GA 19 must be installed in the conditions required by standard NF C 15-100 in premises at risk of fire (external influencing condition BE 2).

Facilities allowing the establishment's electrical installation to be switched off generally must be inaccessible to the public and easy for the emergency services to access. They must not switch off the supply to safety installations or the supply necessary to ensure the safety of the transport system.

Each non railway type area as defined in Article GA 2 must have a device for cutting off its electrical supply that can only be accessed by the operating staff of the station in the event of a fire in this area.

# Article GA 33

# Electricity supply for safety installations and specific installations

The list of electrical installations in a station contributing to the safety of the public in the establishment must be included in the safety file defined in Article GA 39.

These shall be the installations that must be fitted or maintained in order to ensure that the public can be evacuated and to facilitate the intervention of the emergency services. They shall comprise:

- safety installations:
  - safety lighting,
  - fire detection and safety installations,

- lifts to be used in case of fire,
- emergency water resources,
- smoke extraction installations,
- automatic fire extinguishing installations,
- drainage pumps;
- optionally other specific installations for running the establishment.

The electricity supply to safety installations, with the exception of safety lighting and fire alarms, must comprise two separate supply sources, with one acting as a backup to the other. This supply may be provided by one of the following means:

- a normal source from a HV source substation and a safety electricity supply in accordance with standard NGS 61-640 designed to provide at least 1 hour of independent operation for the functions concerned;
- a normal source comprises two separate transformers, each supplied by a different HV source with a different pathway.

However, these provisions shall not rule out the use of a single electrical supply cable, provided that cable:

- can remain operational for one hour;
- is protected so that it cannot be affected by an incident occurring on the other circuits.

The safety lighting installation must be supplied in accordance with the provisions of Article GA 35.

In addition to the aforementioned provisions:

- the cables supplying power to safety installations must meet the following requirements:

a) from the back-up source or the main switchboard to the terminal equipment, they must be category CR 1 cables; the corresponding control or junction boxes and their enclosures, with the exception of the sealing devices, must pass the incandescent wire test laid down in the standards in force, with the temperature of the incandescent wire being 960°C.

b) the specific-risk premises defined in Article GA 19 must not be crossed by cables for safety installations other than those intended to supply equipment located in these premises.

c) the cables for safety installations must be different from the cables for normal installations - replacement.

- each circuit must be protected such that any electrical incident affecting it, due to overcurrents, power cuts or earth faults, does not interrupt the supply of other safety circuits supplied by the same source.
- the electric cable supplying the smoke extraction fans must not be protected against overcurrents, but only against short circuits. Consequently, they must be dimensioned in line with the strongest overcurrents that the motors can cope with.

# Article GA 34

Specific provisions for the electrical installations of underground stations or the underground parts of mixed stations

In underground stations and the underground parts of mixed stations, when they are in contact with the air in volumes accessible to the public:

- the cables or conductors must, unless subjected to more restrictive provisions, be of category C1 and not release any halogen compounds on combustion;
- the conduits, profiled conduits, cable runs and ducts used for cable paths must be classified I1-F1 within the meaning of standard NF F16-101 and pass the resistance to flame propagation test defined in the relevant standard.

# Section VIII LIGHTING

# Article GA 35

Normal lighting, safety lighting

35.1. General information

The provisions of Articles EC 1 to EC 5 of Chapter VIII of Book II of the safety rules shall apply to stations.

In application of Article GA 8, details of the various lighting installations must be included in the detailed information file.

35.2. Normal lighting - design and installation rules

The provisions of Article EC 6(3) and (5) shall apply.

Areas accessible to the public, stairs or slopes, escalators and moving walkways, door and exits, signage as referred to in Article GA 24, and any object forming an obstacle to the circulation of people, must be lit.

The control devices must not be accessible to the public.

In underground stations and the underground parts of mixed stations, the normal lighting installation must be divided between at least two circuits.

If protection against indirect contact is provided by residual differential current protective devices, it shall be possible to group the lighting circuits for areas accessible to the public so as to use only two differential protection devices for these areas, in compliance with the paragraph above.

Normal lighting in stations must not be provide solely using discharge lamps that take longer than 15 seconds to start up. In addition, the localised extinguishing of these lamps or the failure of a constituent element of the normal lighting must not result in areas accessible to the public being completely deprived of normal lighting.

35.3. Safety lighting

35.3.1. General
Stations must be provided with safety lighting that complies with the provisions in Articles EC 7 to EC 13, EC 14(1) and (3) and EC 15 of Chapter VIII of Book II of the Safety Rules.

However, supplementary to Article EC 12(3) and (4), the electric cabling supplying autonomous blocks may come from a branch taken upstream of the protection device for the replacement normal lighting provided all the safety lighting is permanent. In this case, the opening of the protection device for the replacement normal lighting circuit must be signalled in the conditions provided for in Article EL 17.

The layout of the safety lighting must not, under any circumstances, be liable to cause confusion with the signals controlling the circulation of trains or reduce the visibility of those signals.

Where existing installations are extended, it shall be the responsibility of the safety committee, or of the inspection bodies referred to in Article GA 7 where they exist, to assess the consistency of the existing installation with the altered installation.

35.3.2 Overground platforms:

Evacuation safety lighting must be installed:

- on the platforms (or parts of platforms) of overground stations and on the overground platforms (or parts of platforms) of mixed stations covered by an integral roofing structure of the great hall type, tile type, etc.

35.3.3 Access to overground platforms:

Evacuation safety lighting must be installed:

- in the underground passages or closed walkways serving overground platforms.

# Section IX Lifts, escalators and moving walkways

## Article GA 36

*Lifts, escalators, moving walkways* 

Book II, Chapter IX of the Safety Rules shall apply, with the exception of Section 2 thereof.

Each escalator, moving walkway or conveyor, and any other equivalent system, must be capable of being shut off, particularly during an evacuation, at the decision of the operator. It must be fitted with an emergency shutoff device with at least one control available at each end of the equipment. These controls must be signed clearly and obviously.

In category 1 and 2 stations, in addition to the controls laid down in the previous paragraph, an additional shut-off control must be placed in a service space chosen by the operator.

Each time the operator stops or restarts an escalator or moving walkway, this must be proceeded by a warning announcement if the operator cannot see, either directly or by video surveillance, the equipment he is controlling.

By way of relaxation of the provision in Article AS 10 of the Safety Rules, the periodic technical inspections of escalators, moving walkways and conveyors may be carried out by a competent technician designated by the operator. An approved body shall carry out an inspection every five years.

# Section X Installation of cooking apparatus intended for catering.

## Article GA 37

Applicable provisions

Book II, Chapter X, of the Safety Rules shall apply in stations. In addition, in underground stations and the underground parts of mixed stations, the power of cooking and reheating apparatus shall be limited to 20 kW in non-railway type operation areas. Other more restrictive specific measures may be imposed by the safety committee or the bodies defined in Article GA 7 where they exist.

# Section XI Emergency systems

## Article GA 38

General information

Articles MS 1 to MS 44 of the Safety Rules shall apply, unless otherwise regulated in the present regulation.

## Article GA 39

#### Extinguishing means

Fire protection must be provided by portable water spray extinguishers of at least 6 litres capacity, carefully distributed in the establishment and supplemented by extinguishers appropriate to specific risks.

In addition, in stations with several underground levels and with a platform surface area greater than  $1000 \text{ m}^2$ , at least two dry standpipes 100 mm in diameter shall be provided. Each dry standpipe shall comprise:

- two supply connections 65 mm in diameter located at the reference level, less than 60 m from a hydrant, near accesses that can be used by the public emergency and fire-fighting services;

- one 65 mm simple hydrant and two 40 mm simple hydrants on each level served.

The dry standpipes must be tested with water at nominal pressure at least once every three years. Supplementary extinguishing apparatus may be required by the safety committee.

## Article GA 40

#### Surveillance

Surveillance shall be provided:

- either by each station;
- or by a centralised unit as defined in Article GA 3 in the case of a network comprising several stations using video surveillance installations, regardless of the categories of the stations connected.

40.1. Surveillance shall be carried out by one of the following means:

- either a fire safety service as defined in Article GA 41;
- or by persons designated for this purpose by the manager of the establishment. One of these persons shall be present in the establishment and shall be trained:
  - in handling the fire-fighting equipment;
  - in the application of the instructions provided for in the event of evacuation.

40.2. Surveillance of stations not subject to centralised fire safety surveillance:

The surveillance of category 1 establishments meeting at least one of the following conditions shall be carried out by a fire safety service:

- underground station or underground part of a mixed station in which the lowest level accessible to the public is more than 6 m below the reference level;
- establishment located on a site comprising one or more other contiguous or superposed GA-type establishments connected to this establishment with no particular insulation conditions;
- complex station as defined in paragraph 3.1.3.

In other stations not subject to centralised fire safety surveillance, surveillance shall be carried out by at least one person designated by the manager of the establishment.

40.3. Surveillance of stations subject to centralised fire safety surveillance:

Surveillance shall be carried out by at least one person designated by the manager of the establishment in each category 1 establishments meeting at least one of the following conditions:

- underground station or underground part of a mixed station in which the lowest level accessible to the public is more than 6 m below the reference level;
- establishment located on a site comprising one or more other contiguous or superposed GA-type establishments connected to this establishment with no particular insulation conditions;
- complex station as defined in paragraph 3.1.3.

40.4. Human presence.

In other stations subject to centralised fire safety surveillance, a human presence shall not be compulsory. However, in category 1 stations not defined above, the security committee may require the presence of at least one representative of the operator during times when the station is open to the public or during rush hours.

In establishments where the presence of a representative of the operator is not compulsory during public opening hours, in the case of fire or at the request of the fire brigade at least one agent trained under the responsibility of the operator and with full knowledge of the station's technical equipment, in particular of the electrical equipment, must come to the station as soon as possible. His task shall be to secure, if necessary, the installations affected or likely to be affected by the accident.

## Article GA 41

## Fire safety service

The fire safety service, comprising qualified agents, shall be responsible for implementing the instructions relating to fire safety in the establishment.

41.1. Stations not subject to centralised fire safety surveillance as defined in Article GA 3:

The fire safety service of the category 1 establishment defined in subparagraph 1 of paragraph 40.2 shall comprise personnel with qualifications from the Fire Safety and Assistance Service (French designation SSIAP).

A fire safety service of this kind must include at least three SSIAP qualified agents present at the same time, one of whom must have an SSIAP 2 qualification. These numbers may be increased depending on the size of the establishment.

In addition, at least one SSIAP 2 qualified agent and one SSIAP 1 qualified agent must not be distracted from their specific duties.

The other fire safety agents may be employed in other tasks in the establishment. They must remain in permanent contact with the central fire safety post, and be able to be gathered as quickly as possible.

In this case, the fire safety service shall, in particular, have the following duties:

- a) to ensure that evacuation routes to the public road are kept clear and are permanent,
- b) to ensure, during safety inspections, that the members of the safety committee, and of the inspection bodies defined in Article GA 7 where they exist, have access to all common areas and those open to the public,
- c) to organise patrols to prevent and detect fire risks, including in unoccupied areas,
- d) to ensure that the instructions in case of fire are followed;
- e) to direct aid while awaiting the arrival of the fire and rescue services, and then to be available to the head of the detachment of fire and rescue personnel,
- f) to ensure that all fire protection equipment is in working order, and to maintain it or arrange for it to be maintained.

In other stations not subject to centralised fire safety surveillance, the fire safety instructions shall be implemented by a person designated by the manager of the establishment.

41.2. Stations subject to centralised fire safety surveillance:

The fire safety instructions in GA type establishments subject to centralised fire safety surveillance shall be implemented by an SSIAP 2 qualified agent who is present in the central fire safety post under the conditions defined in Article GA 42 and is able to ensure that events relating to fire safety are managed on a permanent basis.

## Article GA 42

## Central fire safety post

A central fire safety post shall be set up if the surveillance of the establishment or of several establishments in the context of centralised fire safety surveillance is carried out by qualified safety agents.

The central fire safety post:

- shall be easily accessible, and shall be set up at the reference level or on the first level above or below the reference level;
- shall be protected by floors and walls of class CF °1 hour, or REI 60 if they have a load-bearing function, or EI 60, and shall be fitted with PF °1/2 hour or E 30 door(s). If, for operating reasons, glazed walls are installed, they shall be of class PF °1 hour or EI 60;
- shall be equipped to receive, in particular, limited alarms transmitted by telephones, manual actuators, automatic fire detection or extinguishing installations, etc.; the central videosurveillance equipment and the equipment contributing to fire safety shall be installed therein;
- shall have a phone connection to the post responsible for managing train circulation and with the intervention management site(s) as defined in Article GA45 in each station for which it provides centralised fire safety surveillance;

- shall have a telephone line connected to an alarm processing centre as defined in Article MS 71(2), or a system recognised as equivalent by the safety committee.

If fire safety is managed centrally, the central fire safety post may be located in premises shared between the post responsible for managing train circulation and/or the post responsible for another compatible surveillance activity (for example, technical building management, security, etc.).

## Article GA 43

# Organisation of fire safety on sites where there are several GA type or similar non-isolated establishments

Where there are several GA type or similar establishments on the same site, not isolated from each other under the condition defined in Article GA 17, the manager of each establishment shall be the sole contact for the administrative authority with regard to the implementation of these Safety Rules, both with regard to his own activities directly and with regard to any other activities included within his establishment.

In order to ensure that everyday safety management forms part of the overall procedure for the group of GA type establishments, the manager of each establishment shall appoint a safety organisation manager (French designation ROS) for his own establishment. Each ROS shall ensure that the safety equipment in his establishment are in working order.

The safety organisation laid down in the previous paragraph shall focus on the following objectives:

- defining the procedures relating to the use of the interfaces between buildings (during tests, maintenance operations etc.) and then annexing these procedures to the establishment's safety register;
- organising at least one coordination meeting each week between the various ROSs on the site. Each meeting shall be the subject of a report which shall be annexed to the safety register of each establishment;
- drawing up a coordination and fire safety plan, listing the various scenarios in the case of fire or evacuation and the interactions between the various networks. This plan shall include forward-planning measures, providing in particular for exercises with the fire and rescue services. The document shall receive the prior joint opinion of the inspection bodies defined in Article GA 7 where they exist, and be attached to the plans that must be submitted to the fire brigade in implementation of Article GA 45;
- providing, in the event of an accident, a single control manager (French designation RUC) chosen from the staff in the establishment where the initial incident occurs. This person shall be the sole contact point for the chief of the fire and rescue operations; the list of positions designated to carry out this responsibility shall be annexed to the establishments' safety register;
- guaranteeing, in the event of an accident, the coordination of the use of each establishment's own equipment.

# Article GA 44

#### *Fire detection and safety installations*

44.1. Principles

The automatic fire detection and safety installations must collect all information or commands relating to fire safety, process it and, as appropriate, carry out the necessary functions to ensure the safety of the establishment or allow said functions to be carried out.

This may comprise the following independent functions:

- compartmentation between the areas accessible to the public and technical premises;
- evacuation of people (broadcasting of an evacuation message or signal and management of exits);
- smoke extraction, with the possible addition of other associated actions;
- automatic fire extinguishing.

These safety functions may be supplemented by technical Orders.

44.2. Provisions on installations and equipment:

The choice of installations and equipment used for fire detection shall give priority to those that comply with the standards and with the provisions in Articles MS 56, MS 57(2) and MS 58.

The fire safety installations and equipment must comply with the texts and standards in force. If this is technically impossible, the conformity of other installations and equipment may be accepted provided that they are the subject of and opinion from a recognised competent laboratory on the basis of provisions specified by the operator in a specific specifications sheet, in order that it can be verified that the level of safety proposed and the functionality described are equivalent to that of the applicable standard(s). This opinion must be sent to the Safety Committee or to the bodies specified in Article GA7 where these exist.

44.2.1. Provisions on installations:

The installations must be designed on the basis of the operating mode as defined in Article 40 above.

The safety concept implemented, describing the operating principles of all installations, shall form part of the safety file defined in Article GA 46.

## 44.2.2. Provisions on equipment:

## 44.2.2.1 Fire detection:

## a) automatic detection

Automatic fire detectors appropriate to the risks must be installed in category 1 and 2 stations, in underground stations and in establishments located on a site comprising one or more other contiguous or superposed GA-type establishments connected thereto with no particular isolation conditions, in particular in:

- all medium- or high-risk premises;
- areas where the public gathers;
- non-railway type areas.

In areas where the public passes through, and in areas where the public gathers and passes through, no automatic fire detection shall be required.

Where automatic fire detection is installed in a volume or premises that is unoccupied when the public is present, a carefully positioned action indicator must be installed.

#### b) manual detection

A manual detection installation must be installed, under the conditions define below, in category 1 and 2 stations, in underground stations and in establishments located on a site comprising one or more other contiguous or superposed GA-type establishments connected thereto with no particular isolation conditions.

Regardless of the category of station, where manual detection is fitted, it may be provided:

- either by manual actuators;
- or by call terminals providing a voice link with an operating agent.

The location of these actuators or terminals shall be defined by the operator, and must receive the agreement of the bodies referred to in Article GA 7 where they have been established. If a voice link as referred to above is not continually monitored, it must undergo a test procedure at regular intervals.

#### 44.3. Fire safety

## 44.3.1 Fire safety system:

The fire safety system of a GA-type establishment shall comprise all of the equipment that carries out functions necessary to ensure the safety of the establishment.

44.3.2. Compartmentation:

A damaged area shall be compartmentalised within the meaning of Article GA 3.6 automatically on the triggering of an automatic fire detector. This provision is without prejudice to the option of installing automatically controlled valves.

44.3.3 Evacuation of people:

The automatically controlled unlocking of the exits and lines shall take place at the same time as the general alarm is broadcast.

As a general rule, the station shall form a single alarm zone. However, several alarm zones may be authorised in agreement with the safety committee.

## 44.3.4. Smoke extraction:

Smoke extraction from an affected area may, depending on the security concept implemented, be controlled from the central fire safety post or the intervention management site defined in Article GA 45.6, by a qualified member of staff.

The smoke extraction may be started up manually or automatically. However, if the controls are automatic, they must be duplicated by an easily accessible and clearly labelled manual control.

The starting up of the smoke extraction fans may, if necessary, entail stopping the comfort ventilation, if the latter does not contribute to the smoke extraction.

#### 44.3.5 Alarm equipment.

Limited alarm, general alarm and selective general alarm equipment may be present simultaneously in a GA-type establishment.

## 44.3.5.1 Limited alarm

This shall be an audible and visible signal distinct from the general alarm signal, with the aim of alerting either the establishment's fire safety post or the management or caretaker, or the staff designated for this purpose, to the existence and location of an incident.

The limited alarm may be triggered using an internal communications network in the establishment, an automatic fire detection installation, alarm terminals, specific intercoms, or any other system judged to be equivalent.

#### 44.3.5.2 Selective general alarm

This shall be a general alarm signal intended to inform staff in the establishment with particular responsibility for implementing evacuation procedures.

In category 1 and 2 stations, automatically or manually controlled sound devices with no time delay, or phonic devices, must make it possible to broadcast the selective general alarm in zones normally frequented by staff.

the operating radio systems and operating sound systems shall be deemed to comply with the objective set out above provided they are powered, in underground stations, by electricity sources separate from those defined in Article GA 33.

#### 44.3.5.3 General alarm

This shall be a sound signal with the aim of alerting the occupants that they must evacuate the site. It must be broadcast for at least five minutes.

The sound signal may be supplemented by a visual signal.

The triggering of the general alarm shall not in any way be subject to the prior triggering of the selective general alarm.

This sound signal must be audible in all the volumes of the station. In all or some of these volumes, it may comprise a pre-recorded voice message on an unalterable, permanent carrier.

In category 1 and 2 stations, the general alarm shall be broadcast by means of acting on a manual device located in one or more premises selected by the operator.

The system for broadcasting the general alarm shall be:

- either a system based on the operating principles of type 1 or 2a alarm equipment;
- or a safety sound system.

Where a station is equipped with a safety sound system, it shall be permitted for the broadcast of the general alarm sound signal in accordance with the standard to be broken up or interrupted by pre-recorded messages clearly requiring the evacuation of the public.

In category 3 and 4 stations, the general alarm shall be broadcast:

- by a system based on the operating principles of type 2b alarm equipment;
- or by a safety sound system.

In all cases, the general alarm shall be broadcast without delay in the absence of qualified staff to act on the limited alarm immediately.

Where the station is subject to centralised fire safety surveillance, the general alarm shall be activated:

- when the videosurveillance operation shows that a fire is starting;
- when the staff of the establishment find that a fire is starting;
- when two devices show that a fire is starting (two automatic fire detectors, one automatic fire detector and a telephone call, etc.);
- if the staff in the central fire safety post consider it necessary.

## 44.3.6 Alert

Stations must have a fixed urban telephone enabling them to alert the public fire and rescue services.

In stations subject to centralised fire safety surveillance, the qualified safety agent in the central fire safety post shall ensure that the alert was passed on.

## Section XII ADDITIONAL OBLIGATIONS RELATING TO OPERATION

## Article GA 45

Additional provisions aiming to facilitate the action of the public emergency and fire-fighting services

45.1. Deterioration of the working conditions of the emergency services

The competent public emergency and fire services must be alerted if a significant deterioration in the evacuation conditions, the smoke extraction equipment or the emergency equipment could adversely affect one of its interventions.

## 45.2. Plans and documents

A complete and up-to-date set of the various plans (plans of the station, guide to smoke extraction scenarios, limits of the fire detection and safety zones etc.) must be placed in the central fire safety post if it exists or in a location defined by the safety committee at the operator's proposal.

A schematic plan drawn up in accordance with standard NFS 60-303 showing the locations of the main partitions and passageways must be available to the public emergency and fire services at the main entrance to stations belonging to the first group.

# 45.3. Continuity of radio links

The provisions of the Safety Rules relating to the continuity of radio links shall apply in stations.

# 45.4. Provision of supplementary equipment

In complex stations, and in stations where the lowest level accessible to the public is more than 15 metres below the reference level, the safety committee require supplementary equipment to be provided. This equipment may be wet or dry standpipes, automatic fire detection or extinguishing equipment, fire towers, etc.

## 45.5. Electric power points

240-400 V - 3P + N + T electric power points, with a nominal usable power of at least 12 kVA, shall be provided in underground stations, with one power point at each end of the station, such that lighting equipment and equipment for cutting victims free can be used.

The compatibility of these specifications (in particular the connectors) with the equipment used by the emergency services shall be verified at local level.

These power points must be supplied using one of the following two solutions:

- either two circuits that cannot be affected simultaneously by the effects of the same incident;
- or a single circuit using fire-resistant cables.

The failure of one power point must not result in the failure of the supply to another power point on the same circuit.

45.6. Intervention management site

All stations belonging to the first group must have a site or volume that can be used by the public emergency and fire services.

This site or volume, referred to as the intervention management site, may be shared with an operating site. It shall comply with the following provisions:

- it shall be easily accessible, and shall be set up at the reference level or on the first level above or below the reference level;
- where surveillance is carried out by a person designated by the manager of the establishment, it shall be equipped to receive, in particular, limited alarms transmitted by telephone points, manual actuator, fire detection or extinguishing installations, etc.;
- it shall have a voice link with the post responsible for managing circulation and, if relevant, with the central fire safety post on which it depends;
- it shall have a fixed urban telephone connection or a system recognised as equivalent by the safety committee.

## Article GA 46

#### File relating to the organisation of fire safety

The application for administrative authorisation relating to an establishment defined in Article GA 43 sent to the safety committee must be accompanied by a specific file covering the organisation of the safety of people in the establishment, both in normal situations and in the case of disaster.

In addition to the provisions laid down in Articles MS 45, MS 46 and MS 48, this file must include the following items:

a) the fire safety service:

- organisation of the service;
- number of agents providing this service;
- qualifications of the agents;
- the base for agents working on site;
- possible method of organising an intervention;
- description of the process of intervention on site;
- estimated average intervention time;
- description of the links provided between the central fire safety post and the agents intervening on site.

b) the intervention management site(s) or the central fire safety post(s):

- location in relation to the reference level and protection from disaster;
- surface area devoted to the intervention management site or to the central fire safety post and to the adjacent sites that may temporarily be used as 'incident rooms' and that may, in normal conditions, be specifically dedicated to railway operation;
- number of permanent occupants;
- surface areas devoted to staff working and living premises;
- description of the process for exchanging information with the premises for managing the operation of the transport system;
- description of the process of exchanging information with any third parties concerned.

c) disaster management:

- equipment and personnel made available to the chief of emergency operations (French designation COS).

For urban public guided transport systems, the requirement for the specific file covering the safety organisation in the establishment may be met by providing the information defined above in the Safety and Intervention Plan (French designation PIS) and/or the Operator Safety Rules (French designation RSE) laid down in Decree No 2003-425 of 9 May 2003 and its implementing texts.

## Article GA 47

#### Safety register, instructions

The safety register must be kept up to date in accordance with Article R. 123-51 of the Construction and Housing Code.

In all cases, operators must ensure that the staff involved are fully conversant with the fire instructions.

#### Article GA 48

#### *Recognition of installations by fire-fighters*

The operator's representatives shall, in particular when new or refurbished installations are commissioned, submit the plans of said installations to the local fire brigade to enable them to draw up their intervention plans and survey the premises. In particular, the fire brigade must be informed of the access points, the passageways, the water take-off points, the controls for the safety systems, and sensitive installations.

## Part III

# Provisions applicable to category 5 GA type establishments

## Article GA 49

The provisions in Book III of the Safety Rules shall apply to category 5 GA-type establishments.

By way of relaxation of said provisions, the threshold laid down in paragraph 2 of Article PE 27 on the presence of people in the context of surveillance shall be set at 50 persons in GA type establishments.

For other GA-type establishments belonging to the second group, the physical presence of a member of staff or of a manager may be replaced by the provision of a voice link enabling the public to contact the operator.

Railway operation type areas located in an establishment where there is no permanent physical presence of the operator shall be subject only to the provisions of Article PE 4.

In Book III, Chapter I, of the Safety Rules (amended Order of 22 June 1990), the table supplementing the provisions of Article PE 2(1) is replaced by the following table:

	Types	G	Group 1 thresholds		
		Base ment	Storeys	All levels	
J	Facilities for elderly and disabled people				
	- number of residents	-	-	20	
	- total number	-	-	100	
L	Rooms used for hearings, conference rooms, 'multimedia' meeting rooms	100		200	
	auditoria, projection rooms or multiple-use rooms	20		50	
М	Shops	100	100	200	
N	Restaurants or licensed premises	100	200	200	
0	Hotels or boarding houses			100	
Р	Dance halls or gaming halls	20	100	120	
D	Nursery schools, crèches, day nurseries and kindergartens	(*)	1 (**)	100	
R	Other establishments	100	100	200	
	Establishments with sleeping areas			30	
S	Libraries or document centres ( <i>Order of 12 June 1995, Article 4</i> )	100	100	200	
Т	Exhibition halls	100	100	200	
U	Care establishments				
	- without accommodation			100	
	- with accommodation			20	
V	Worship establishments	100	200	300	
W	Administrative activities, banks, offices	100	100	200	
Х	Covered sporting establishments	100	100	200	
Y	Museums (Order of 12 June 1995, Article 4)	100	100	200	
OA	Hotel-restaurants at high altitude			20	
GA	16.2.1. Overground stations (***)			200	
PA	Open air establishments			300	
	(*) These activities shall be prohibited at b	pasement	level.		
	(**) If the establishment comprises only one level,	located of	on a storey	: 20.	
(;	***) Underground and mixed stations are classified in	n group	l regardles	s of the	

	Types	G	Group 1 thresholds					
		Base ment	Storeys	All levels				
numbers.								