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on the technical requirements for the fire protection of buildings

Pursuant to Section 24(3) of Act No. 133/1985 Coll. on fire protection, as amended by Act No. 186/2006 Coll., the Ministry of the Interior hereby provides:

SECTION 1
Object

(1) This Decree lays down the technical requirements for fire protection in the design, construction and use of buildings.

(2) This Decree was notified pursuant 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 rules for the Information Society, as amended by Directive 98/48/EC.

Section 2
Design and location of buildings

(1) Buildings shall be located and designed so that, depending on their type, the technical requirements are met with respect to
a) spacing distances and fire safety zones,
b) sources of firefighting water and other extinguishing agents,
c) provision of dedicated fire safety equipment for buildings,
d) access routes and parking areas for firefighting equipment,
e) provision of fire protection units for buildings or land,
as laid down in the Czech technical standards listed in Annex 1 Part 1, unless stipulated otherwise in special legislation[1)].

(2) In the design of buildings, depending on the type of building, the technical requirements for fire protection shall also be met with respect to
a) building elements and technological equipment,
b) evacuation of people and animals,
as laid down in the Czech technical standards listed in Annex 1 Part 1, unless stipulated otherwise in special legislation[1)].

Section 3
Fire sectors and fire risk

In the design of buildings, fire sectors shall be defined and the probable intensity of

[1)] Decree No. 246/2001 Coll., laying down the requirements for fire safety and state fire surveillance (Fire Prevention Decree).

any fire in such fire sectors or parts of them determined (hereinafter “fire risk”) pursuant to Section 15, Section 17, Section 23 and the Czech technical standards listed in Annex 1 Parts 2 and 3.

Section 4
Degree of fire safety

(1) The ability of the building elements of a fire sector or a part of it as a whole to resist the effects of fire with regard to fire propagation and the stability of building elements (hereinafter “degree of fire safety”) shall be determined pursuant to the Czech technical standards listed in Annex 1 Part 2, depending on the type of building and on

a) the fire risk,
b) the building design system and
c) the height of the building or the number of floors taking account of the position of the fire sector on floors above and below ground level.

(2) In the case of procedures pursuant to the Czech technical standards listed in Annex 1 Part 3, the degree of fire safety shall not be determined.

Section 5
Fire resistance of building elements and fire doors

(1) The fire resistance of building elements and fire doors in fire sectors shall, depending on the type of structure and building, be designed using a procedure pursuant to the Czech technical standards listed in Annex 1 Parts 2 and 4.

(2) Fire separation and load-bearing building elements in buildings with 3 and more floors above ground level shall be designed with fire resistance of at least 30 minutes, unless the Czech technical standards listed in paragraph 1 stipulate higher resistance. In the case of fire separation and load-bearing building elements on the highest floor above ground level and fire sectors without fire risks, the requirements for fire resistance shall be laid down pursuant to the Czech technical standards listed in Annex 1 Part 2.

(3) Fire doors for spaces housing emergency sumps pursuant to the Czech technical standards listed in Annex 1 Part 1(10) shall meet the same requirements for fire resistance as the fire separation structure of which they form part, but a maximum of 90 minutes.

Section 6
Reaction to fire

The reaction to fire of building elements, including construction products intended to be built into buildings (hereinafter “reaction to fire”), shall be classified in classes A to F, including the subscripts allocated pursuant to the Czech technical standard given in Annex 1 Part 5.

Section 7
Roof cladding

Roof cladding shall be classified pursuant to the Czech technical standard given in Annex 1 part 6(3). Roof cladding located in areas at risk of fire or assessed as fire sealed areas

shall be designed with classification B_{ROOF} (t3) for the required pitch pursuant to the Czech technical standard given in Annex 1 Part 6(3). Roof cladding not located in areas at risk of fire or assessed as fire sealed areas may form a continuous area larger than 1500 m^2 without further division, providing it is designed with classification B_{ROOF} (t1) for the required pitch pursuant to the Czech technical standard given in Annex 1 Part 6(3).

Section 8
Design of chimneys and flues

(1) Chimneys, flues or parts of them shall be designed using construction products in a reaction to fire class of at least A2. Chimneys, flues or parts of them may have reaction to fire class B to E, if the requirements of the Czech technical standard given in Annex 1 Part 7(3) are met.

(2) The distance of a building element made from products in reaction to fire class B to F away from the external surface of chimneys and flues shall be determined by testing pursuant to the Czech technical standard given in Annex 1 Part 7(1). For system chimneys, individual chimneys and flues, the distance for a building element pursuant to the first sentence shall be given by the values shown in the Czech technical standard given in Annex 1 Part 7(2).

(3) Chimneys shall be marked pursuant to the Czech technical standard given in Annex 1 Part 7(1).

Section 9
Technical equipment

(1) Electrical equipment the operation of which is essential in fires in order to protect people, animals and property shall be designed so that, in fires, the supply of electrical energy is guaranteed under the conditions laid down in the Czech technical standards given in Annex 1 Part 1(1) and (2) and Part 4. The types and properties of loosely laid conductors and cables supporting the operation of electrical equipment pursuant to the first sentence are given in Annex 2.

(2) Equipment forming a system for protecting buildings and their users against lightning or other atmospheric electrical discharges shall be designed using products in a reaction to fire class of at least A2.

(3) In buildings 45 m high and over, low-pressure gas boilers shall be located on the roof or on the highest floor above ground level and with the gas pipes outside the peripheral structure. Branch gas pipes leading to low-pressure boilers shall be as short as possible. Low-pressure boilers located on the roof or on the highest floor above ground level shall be fitted with remotely controlled gas stop taps which can be controlled from ground level.

(4) Heating systems and heating equipment shall be designed so that their parameters correspond to the type of building and the environment in which the equipment is to be operated. Heating equipment shall be located at a safe distance away from products in reaction to fire class B to F determined on the basis of tests performed pursuant to the Czech technical standard given in Annex 1 Part 8.

(5) Ventilation equipment shall be designed pursuant to the Czech technical standards

given in Annex 1 Parts 4 and 9. Pipes on ventilation equipment shall be visibly marked with the direction of flow and whether the pipe is for exhaust or suction.

(6) Piping crawl spaces and fire separation installations shall be sealed pursuant to the Czech technical standards given in Annex 1 Part 1(1) and (2) and part 4. In the case of requirements for fire resistance for crawl spaces pursuant to the Czech technical standard given in Annex 1 Part 4, the crawl spaces shall be clearly marked with plates showing information on

a) fire resistance,
b) kind or type of seal,
c) date of execution,
d) company, address and name of manufacturer,
e) designation of system manufacturer.

Section 10
Evacuation of people

(1) Escape routes intended for the evacuation of people shall be designed to meet the requirements of this Decree and the Czech technical standards given in Annex 1 Part 1 with respect to their type, number, position, capacity, service life, technical equipment, design and materials and protection against smoke, heat and combustion products. Emergency lighting shall be fitted to protected escape routes and partially protected or unprotected escape routes, if substituting for protected escape routes.

(2) The opening and clearance of doors on escape routes shall correspond to the Czech technical standards given in Annex 1 Part 2.

(3) The tread layers of floors in protected escape routes shall be designed using materials in a reaction to fire class of at least C_{fl}–s1.

(4) Escape routs shall be fitted with safety signs, boards and texts with safety information (hereinafter “safety markings”) for the purpose and to the extent needed to facilitate the evacuation of people. Such safety markings shall be positioned in particular in places where the escape direction changes, where there are cross-routes and where there is any change in the escape height level.

(5) Evacuation lifts shall be marked with the safety marking “Evacuation lift” in the lift cabin and outside on the lift shaft doors. Lifts which are not used for evacuation shall be similarly marked with the safety marking “This lift is not to be used for the evacuation of people”.

(6) In order to ensure the smooth evacuation of people, buildings shall be fitted with technical equipment for evacuation control pursuant to the Czech technical standards given in Annex 1 Part 1(1) and (2).

Section 11
Areas at risk of fire and spacing distances

(1) In fire sectors in buildings, areas at risk of fire shall be defined and spacing distances determined pursuant to the Czech technical standards given in Annex 1 Part 2 .

(2) The determination of spacing distances for fire sectors shall be based on the maximum percentage value of areas open to fire in the peripheral wall or the roof cladding. If this value does not reach 40 %, spacing distances for the individual areas open to fire or groups of them shall be determined using a procedure pursuant to the Czech technical standards given in Annex 1 Part 1(1) and (2).

(3) Spacing distances shall be compared with safety distances[2)]; the greater of these distances shall be used to define areas at risk of fire.

(4) Areas at risk of fire shall also be defined for loose storage of flammable substances, technological equipment, loosely laid piping for flammable substances, cages for the storage of pressure vessels and products and equipment considered to be buildings pursuant to special legislation[3)].

Section 12
Equipment for firefighting and rescue work

For effective and safe operations by fire protection units or for primary interventions in the event of fire, buildings shall be designed and provided with

a) access routes, including parking areas for firefighting equipment,
b) internal and external deployment routes linked to the access routes,
c) fire safety equipment,

pursuant to the Czech technical standards given in Annex 1 Part 2 and the requirements given in Annex 3.

Section 13
Extinguishers for buildings

(1) The number of portable extinguishers shall be laid down by Annex 4.

(2) When positioning mobile extinguishers on escape routes, the width of the escape routes shall be maintained pursuant to the Czech technical standards given in Annex 1 Part 2. When selecting locations, account shall be taken of the need to provide sufficient handling space.

Section 14
Fire safety equipment for buildings

(1) Buildings shall be provided with fire safety equipment[4)] pursuant to the Czech technical standards given in Annex 1 Part 2.

(2) If an expert report or expert assessment[5)] shows that the failure to provide a building with dedicated fire safety equipment will result in a direct threat to human life, the building shall be provided with such equipment even if the provision of such equipment for the building is only recommended by the Czech technical standard given in Annex 1 Part 4.

[2)] For example, Annex 1 of Decree No. 246/2001 Coll.
[3)] Act No. 183/2006 Coll. on town and country planning and the construction code (Construction Act).
[4)] Section 2(4) of Decree No. 246/2001 Coll.
[5)] Section 41(4) of Decree No. 246/2001 Coll.

(3) Buildings listed in Sections 15 to 17 and Section 28 shall be provided with the independent detection and signalling equipment listed in Annex 5.

Section 15
Family homes and buildings for family recreation

(1) Family homes and buildings for family recreation[6)] shall be designed pursuant to the Czech technical standard given in Annex 1 Part 1(3), unless stipulated otherwise.

(2) If the surface area of the fire sector of a family home or building for family recreation is no larger than 600 m^2, a separate garage or carport for a car, van or two-wheeled vehicle shall form part of the fire sector.

(3) If the surface area of the fire sector of a family home or building for family recreation is larger than 600 m^2, the length of the escape route shall be determined pursuant to Section 10.

(4) For a family home or building for family recreation with a flammable construction system, loadbearing or fire separation building elements shall correspond to the degree of fire safety laid down pursuant to Section 4.

(5) Family homes shall be provided with independent detection and signalling equipment. This equipment shall be positioned in a part leading to the exit from the apartment or, for maisonettes and family homes with several apartments, in the highest place in common corridors or areas. If an apartment has a floor area larger than 150 m^2, further equipment shall be placed in another suitable part of the apartment.

Section 16
Apartment buildings

(1) Apartment buildings[6)] shall be designed pursuant to the Czech technical standard given in Annex 1 Part 1(3), unless stipulated otherwise.

(2) In apartment buildings, each apartment shall be provided with independent detection and signalling equipment. This equipment shall be positioned in a part of the apartment leading to the escape route. For apartments with a floor area larger than 150 m^2 and for maisonettes, further equipment shall be placed in another suitable part of the apartment.

Section 17
Hostel buildings

(1) Hostel buildings[6)] shall be designed pursuant to the Czech technical standard given in Annex 1 Part 1(3), unless stipulated otherwise.

(2) Escape routes in hostel buildings shall be fitted with emergency lighting. Such routes shall not have any reflective surfaces or mirrors which might confuse people escaping and lead them away from the direction of escape.

[6)] Section 2 of Decree No. 501/2006 Coll. on the general requirements for land use.

(3) Protected escape routes and doors, stairs and corridors leading to them and exits from them shall be provided with safety markings visible day and night.

(4) Stairs in hostel buildings with more than three floors above ground level or with three or more underground floors shall be marked at the entrance to each floor. The markings shall comprise the number of the floor above ground level followed by the letters “NP” or of the underground floor followed by the letters “PP”.

(5) Areas intended for accommodating people in buildings other than hostels shall always form independent fire sectors. Such fire sectors shall contain a maximum of 20 beds.

(6) Hostel buildings with a design capacity of over 75 people shall be fitted with internal broadcast systems which cannot be switched off.

(7) Hostel buildings for which there is no requirement for the provision of electrical fire signalling shall be fitted with independent detection and signalling equipment. The independent detection and signalling equipment shall be located in every guest room, common areas and in parts leading to the exit from the building, unless there is a protected escape route.

(8) Hostel buildings for accommodation with a design capacity of 20 people and more and with more than three underground floors shall be equipped with evacuation lifts.

(9) In the areas intended for the accommodation of people in hostel buildings with a design capacity of over 100 people, tests conducted pursuant to the Czech technical standard given in Annex 1 Part 10 shall show that

a) the flammability of textile curtains and drapes is longer than 20 seconds and
b) the upholstery materials are suitable with respect to flammability.

(10) Hostel buildings with more than three floors above ground level for accommodation with a design capacity of 20 people and more shall be fitted on each floor with hose systems for primary intervention close to the accesses to the stairs or exits, on escape routes and in places at risk of fire, at a maximum distance of 25 m apart.

Section 18
Health care and social welfare buildings

(1) Health care and social welfare buildings shall be designed pursuant to the Czech technical standard given in Annex 1 Part 1(4), unless stipulated otherwise.

(2) Day nurseries shall not be located underground. This shall not apply if there is an exit from the area directly into a free space pursuant to the Czech technical standards given in Annex 1 Part 1.

(3) Stairs in health care and social welfare buildings with more than three floors above ground level or two or more underground floors shall be marked at the entrance to each floor. The markings shall comprise the number of the floor above ground level followed by the letters “NP” or of the underground floor followed by the letters “PP”.

(4) Fire separation and loadbearing building elements in health care and social welfare buildings shall be designed with fire resistance of 30 minutes, unless the Czech technical standard listed in paragraph 1 stipulates higher resistance.

(5) Social welfare buildings not covered by the requirement pursuant to the Czech technical standard given in Annex 1 Part 1(4) for the provision of electrical fire signalling shall be fitted with independent detection and signalling equipment. The independent detection and signalling equipment shall be located in every accommodation unit and in parts leading to the exit from the building, unless there is a protected escape route.

(6) In the sleeping areas of health care and social welfare buildings with a design capacity of over 50 people, tests conducted pursuant to the Czech technical standards given in Annex 1 Part 10 shall show that

a) the flammability of textile curtains and drapes is longer than 20 seconds and
b) the upholstery materials are suitable with respect to flammability.

Section 19
Buildings with assembly areas

(1) Buildings with assembly areas shall be designed pursuant to the Czech technical standard given in Annex 1 Part 1(5), unless stipulated otherwise.

(2) The surface structure of interior assembly areas shall make use of construction products in a reaction to fire class of at least B-s1-d0, meeting the flame propagation requirements pursuant to the Czech technical standard given in Annex 1 Part 11(2). The ceiling design shall use only construction products which do not drip or fall in fire pursuant to the Czech technical standard given in Annex 1 Part 11(1).

(3) In the areas intended for the assembly of people in buildings with interior assembly areas, tests conducted pursuant to the Czech technical standards given in Annex 1 Part 10 shall show that

a) the flammability of textile curtains and drapes is longer than 20 seconds and
b) the upholstery materials are suitable with respect to flammability.

(4) In the areas intended for the assembly of people, fixed benches or seats shall be designed using products in a reaction to fire class of at least A2.

(5) Buildings with interior assembly areas shall always be designed with at least one escape route capable of evacuating people pursuant to special legislation[7)]. The minimum width of this escape route shall be 1.1 m.

(6) Fire sectors in buildings with interior assembly areas and the linking escape routes shall be equipped with emergency lighting.

(7) Stairs in buildings with interior assembly areas shall be marked at the entrance to each floor. The markings shall comprise the number of floor above ground level followed by the letters “NP” or of the underground floor followed by the letters “PP”.

[7)] Decree No. 369/2001 Coll.

(8) Loadbearing roof structures above assembly areas and loadbearing structures ensuring building stability shall be designed with fire resistance corresponding to twice the value of the anticipated time for the evacuation of people, but at least 15 minutes. If an assembly area is used for more than 2500 people, the fire resistance of the roof and the loadbearing structure ensuring building stability shall correspond to twice the value of the anticipated time for the evacuation of people, but at least 30 minutes.

(9) In buildings with interior assembly areas of types VP2 and VP3 pursuant to the Czech technical standard given in paragraph 1, there shall be an evacuation lift, except for cases where it is possible to escape from the floor of the assembly area into free space on the flat or along a ramp.

Section 20
Lookout tower buildings

(1) Wooden lookout towers with no peripheral walls shall be designed to be a maximum of 30 m high and with unprotected escape routes. The height of a lookout tower shall be taken to mean the vertical distance of the lookout platform from ground level.

(2) Wooden lookout towers with peripheral walls shall be designed to be a maximum of 15 m high. Partially protected escape routes with ventilation shall be provided for people to escape from these towers.

(3) The spacing distance of lookout towers pursuant to paragraphs 1 and 2 shall be 6.5 m from the exterior housing of the structure.

(4) If a component of a lookout tower is also an area with another purpose, loadbearing and fire separation building elements shall be designed as type DP1. Such buildings shall be designed pursuant to Sections 2 to 14. Unprotected escape routes shall not be longer than 25 m; if this requirement cannot be met, a protected escape route shall be provided.

(5) If a lookout tower building is situated such that the conditions for firefighting and rescue work are difficult, in particular if the probable time from reporting a fire to the start of intervention exceeds 15 minutes, the spacing distance shall be increased by 50 %.

Section 21
Garage buildings

(1) Garage buildings shall be designed pursuant to the Czech technical standard given in Annex 1 Part 1(2), unless stipulated otherwise.

(2) Garages used to park vehicles driven by gas shall be fitted with gas leak detectors and effective ventilation.

(3) Individual places in a garage for parking motor vehicles used to transport flammable liquids and flammable gases shall be separated by fire separation structures with a fire resistance of at least 30 minutes. These places shall be arranged so as to prevent flammable liquids leaking from these places.

(4) Fire sectors in garages with stacking systems which do not meet the requirements for rapid and effective invention by fire protection units shall be fitted with fixed firefighting systems with at least a simple water supply pursuant to the Czech technical standard given in Annex 1 Part 12.

(5) Fire sectors for underground garages intended for the public shall be equipped with internal broadcast systems which cannot be switched off.

Section 22

Filling station, servicing and repair buildings

(1) Filling station, servicing and repair buildings shall be designed pursuant to the Czech technical standards given in Annex 1 Part 13, unless stipulated otherwise.

(2) The building elements of filling stations, filling and drainage points, airfield filling stations and filling stations for inland waterways shall be designed as type DP1. This shall not apply for the roofing structures of filling stations with a maximum of 6 pumps including a kiosk or for roofing between the pumps and the service building, if an underground tank is used to store flammable liquids; in this case, a building element of type DP2 may be used with no need to meet the requirements for fire resistance.

(3) Servicing or repair workshops used for vehicles driven by gas shall be fitted with gas leak detectors and effective ventilation.

(4) Rooflights at filling stations shall be made from construction products in reaction to fire class E-d_0, which do not drip or fall in fire pursuant to the Czech technical standard given in Annex 1 Part 11(1). Rooflights shall not occupy more than 60 % of the roof area.

(5) The building elements of filling stations, filling and drainage points, airfield filling stations and filling stations for inland waterways shall be designed using products in a reaction to fire class of at least A2.

Section 23

Buildings used for school and educational establishment activities

(1) Buildings used for school and educational establishment activities[8)] shall be designed pursuant to the Czech technical standard given in Annex 1 Part 1(1), unless stipulated otherwise.

(2) Nursery school buildings shall not have more than 2 floors above ground level. Underground floors shall not be designed for children's accommodation. When locating a nursery school in a building with another purpose than that of a building used for school activities, the space for the nursery school shall be not situated higher than the second floor above ground level.

[8)] Act No. 561/2004 Coll. on pre-school, primary, secondary, further specialist and other education (Schools Act), as amended.
Act No. 111/1998 Coll. on universities and amending certain other Acts (Universities Act), as amended.

(3) For nursery school buildings, fire separation structures and structures ensuring building stability shall be designed using products in a reaction to fire class of at least B. When using attic spaces for children's accommodation, the loadbearing roof structure shall not be designed using a structure of type DP3.

(4) Each class in a nursery school shall form a separate fire sector.

(5) Nursery school buildings intended for more than 20 children shall be provided with two escape routes.

(6) Nursery school, primary school and secondary school buildings intended for disabled pupils shall not have escape routes with swing or revolving doors.

(7) School buildings intended for more than 100 children, pupils or students shall be equipped with internal broadcast systems which cannot be switched off.

(8) Educational establishment buildings intended for lodging[9)] or spaces intended for lodging in educational establishment buildings shall meet the requirements pursuant to Section 19.

Section 24
Agricultural buildings

(1) Agricultural buildings shall be designed pursuant to the Czech technical standard given in Annex 1 Part 1(9), unless stipulated otherwise.

(2) Ceiling soffits or roof structures for barns shall be designed using products in a reaction to fire class of at least D-s1-d0, which do not drip or fall in fire pursuant to the Czech technical standard given in Annex 1 Part 11(1).

(3) Fire separation structures and loadbearing structures ensuring building stability for barns with more than 2 floors above ground level or storage silos shall be designed using a structure of type DP1.

(4) Stores designed to store more than 7 m^3 of liquid pest control and crop protection products, fertilizers and similar substances which are flammable substances shall meet the requirements laid down for the storage of flammable liquids pursuant to the Czech technical standard given in Annex 1 Part 1(10).

(5) The stores listed in paragraph 4 shall have information plates at the entrances, showing:
a) the type of danger presented by the substances being stored,
b) the total capacity of the store and
c) the storage method used for the substances being stored.

Section 25
Production and storage buildings

9) Act No. 561/2004 Coll.

(1) Production and storage buildings shall be designed pursuant to the Czech technical standard given in Annex 1 Part 1(6), unless stipulated otherwise.

(2) Fire separation and load-bearing structures ensuring building stability for pyrotechnic product stores shall be designed using structures of type DP1.

(3) Pyrotechnic product store buildings shall have the following safety markings at the entrances and other suitable places: "No smoking within 15 m", "No naked flames" and "Not for storage of flammable and combustible substances". Such stores shall also be provided with metal safety markings giving information on the hazardous properties of the substances being stored, the total capacity of the store and the storage method used for the substances being stored.

(4) Electrical equipment in pyrotechnic product stores shall be designed for flammable or explosive atmospheres pursuant to the Czech technical standards given in Annex 1 Part 16.

Section 26
Listed buildings

(1) Listed buildings shall be provided with
a) electrical fire signalling or fire alarms used in electrical security signalling,
b) fixed firefighting systems in
   1. unique areas of the building or areas with unique collections of historic objects,
   2. unique wooden buildings including exterior protection of them.

(2) Listed buildings shall be altered pursuant to the Czech technical standard given in Annex 1 Part 14.

Section 27
Protection of movable cultural heritage

(1) Parts of buildings housing movable cultural heritage shall be provided with
a) electrical fire signalling or fire alarm used in electrical security signalling,
b) fixed firefighting systems if unique collections of historic objects are involved.

(2) The requirements pursuant to paragraph 1 shall not apply for buildings housing movable cultural heritage prior to the date of entry into force of this Decree.

Section 28
Building site buildings

(1) Building site buildings shall be designed pursuant to the requirements given in Sections 2 to 14 depending on the size of the building, the fire risk value and the possible consequences of a fire.

(2) Building site accommodation buildings shall be provided with independent detection and signalling equipment. The independent detection and signalling equipment shall be located in every room intended for accommodation for people and in the section leading to the exit from the building site accommodation.

Section 29
Construction of buildings

When constructing buildings, depending on the stage of construction, the requirements of this Decree shall be met to the extent needed to ensure fire safety.

Section 30
Use of buildings

(1) When using buildings, the level of fire protection arising out of the technical requirements for buildings fire protection pursuant to which the building was designed, constructed and has started to be used shall be maintained.

(2) The interior of buildings not subject to control pursuant to special legislation[3)] shall be adapted pursuant to the requirements given in Annex 6 and in the Czech technical standards given in Annex 1 Part 1(1) and (2).

(3) In the area of protected escape routes, the quantity of flammable substances shall not exceed the extent given in Annex 6. When placing materials or furnishings in unprotected or partially protected escape routes, it shall be possible to open the doors fully. Nor shall free passage through the escape routes be threatened. Details can be found in Annex 6 Part A.

(4) Areas with the presence of flammable liquids shall be used in accordance with the requirements given in Annex 7 and pursuant to the requirements laid down in the Czech technical standard given in Annex 1 Part 1(10).

(5) Accommodation sections of building site buildings shall not house any heating equipment or heating systems using liquefied hydrocarbon gases, including storage vessels.

(6) Technical equipment in buildings, the sudden stoppage or switching off of which would cause an accident shall be clearly marked with a plate containing information on the purpose of the equipment and the nature of the danger.

(7) Terraced, large or multi-storey free-standing or attached garages shall not house motor vehicles for the transportation of flammable liquids and flammable gases.

(8) Underground large garages intended for public use shall not be used to park vehicles driven by gas.

(9) Garages shall not be used to store pressure vessels containing flammable and combustible gases.

(10) If a safety distance for heating equipment manufactured prior to the entry into force of this Decree is not laid down in the manufacturer’s instructions, this distance shall be determined pursuant to Annex 8; this shall not apply for heating equipment for which manufacturer’s instructions are available and such instructions do not include any requirement for safety distances.

Section 31
Common provisions

Alteration of completed buildings, changes in the use of buildings and maintenance work shall be in accordance with the Czech technical standard given in Annex 1 Part 14. For alterations to buildings in groups II and III pursuant to this Czech technical standard, the parts of buildings affected by the alterations shall be provided with independent detection and signalling equipment, if so required by the design of the parts of the buildings in question.

Section 32
Transitional provisions

(1) For buildings the use of which began prior to the date of entry into force of this Decree, the fire protection requirements for the use of buildings pursuant to Section 30 shall be met within six months from the date of entry into force.

(2) For buildings declared to be listed prior to the date of entry into force of this Decree, the requirements pursuant to Section 26(1) shall be met for alterations to buildings undertaken pursuant to Section 26(2) in the parts affected by such alterations.

(3) For the construction of buildings the location of which was legitimately approved in a planning procedure or for which consent was issued pursuant to special legislation[3)] prior to the date of entry into force of this Decree and also for buildings for which planning documentation was produced and given a favourable opinion pursuant to special legislation[10)], the existing legal arrangements shall apply after the date of entry into force of this Decree.

Section 33
Entry into force

This Decree shall enter into force on 1 January 2008.

Minister:

[10)] Section 31(4) of Act No. 133/1985 Coll. on fire protection, as amended.

Part 1 Determination of technical requirements

1. ČSN 73 0802 Fire safety for buildings (hereinafter "FSB")-Non-production facilities
2. ČSN 73 0804 FSB-Production facilities
3. ČSN 73 0833 FSB-Living and accommodation buildings
4. ČSN 73 0835 FSB-Health care and social welfare buildings
5. ČSN 73 0831 FSB-Assembly areas
6. ČSN 73 0845 FSB-Stores
7. ČSN 73 0873 FSB-Fire-extinguishing water supply
8. ČSN 73 0818 FSB-Human occupation of buildings
9. ČSN 73 0842 FSB-Agricultural production facilities
10. ČSN 65 0201 Flammable liquids – Plants and stores
11. ČSN 73 0843 FSB-Communications and postal facilities

Part 2 Determination of fire risk and division of buildings into fire sectors pursuant to Section 3

1. ČSN 73 0802 FSB-Non-production facilities
2. ČSN 73 0804 FSB-Production facilities
3. ČSN 73 0833 FSB-Living and accommodation buildings
4. ČSN 73 0831 FSB-Assembly areas
5. ČSN 73 0835 FSB-Health care and social welfare buildings
6. ČSN 73 0845 FSB-Stores
7. ČSN 73 0842 FSB-Agricultural production facilities
8. ČSN 65 0201 Flammable liquids – Plants and stores
9. ČSN 73 0843 FSB-Communications and postal facilities

Part 3 Determination of fire risk pursuant to Section 4

ČSN EN 1991-1-2 Eurocode 1: Actions on structures - Part 1-2: General actions – Actions on structures exposed to fire

Part 4 Determination of the fire resistance of structures pursuant to Section 5

ČSN 73 0810 FSB-Common provisions

Part 5 Reaction to fire classes pursuant to Section 6

ČSN EN 13 501-1 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

Part 6 Classification standards - fire resistance of roof cladding pursuant to Section 7

1. ČSN EN 13 501-2 Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance tests, excluding ventilation services
2. ČSN EN 13 501-3 Fire classification of construction products and building elements - Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers
3. ČSN EN 13 501-5 Fire classification of construction products and building elements - Part 5: Classification using data from external fire exposure to roofs tests

Part 7 Determination of the requirements for chimneys pursuant to Section 8

1. ČSN EN 1443 Chimneys - General requirements
2. ČSN EN 12391-1 Chimneys - Execution standard for metal chimneys - Part 1: Chimneys for non-roomsealed heating appliances
3. ČSN 73 4201 Chimneys and flues - Design, construction and connection of heating appliances

Part 8 Determination of the requirements for heating equipment pursuant to Section 9

ČSN 06 1008 Fire safety of heating equipment

Part 9 Determination of the requirements for ventilation equipment pursuant to Section 9

ČSN 73 0872 FSB-Protection of buildings against the propagation of fire by ventilation equipment

Part 10 Determination of requirements with respect to combustibility and flammability pursuant to Sections 17, 18 and 19

1. ČSN EN 1101 Textiles and textile products - Burning behaviour - Curtains and drapes - Detailed procedure to determine the ignitability of vertically oriented specimens (small flame)
2. ČSN EN 1021-2 Furniture - Assessment of the ignitability of upholstered furniture – Part 2: Ignition source - match flame equivalent
3. ČSN 73 0831 FSB-Assembly areas

Part 11 Assessment of construction materials pursuant to Sections 19 and 22

1. ČSN 73 0865 Assessment of dripping of materials from ceilings soffits and roofs
2. ČSN 73 0863 Fire characteristics of materials. Determination of flame propagation across the surface of construction materials
3. ČSN 73 0862 Determination of the degree of flammability of construction materials
4. ČSN 73 0823 FSB-Flammability of construction materials
5. ČSN 73 0822 Fire characteristics - Flame propagation across the surface of construction materials

Part 12 Design of fixed firefighting systems pursuant to Section 21

ČSN EN 12845 Fixed firefighting systems – Automatic sprinkler systems – Design, installation and maintenance

Part 13 Determination of the requirements for buildings containing flammable liquids – Annex 7

1. ČSN 65 0201 Flammable liquids – Plants and stores
2. ČSN 65 0202 Flammable liquids. Filling and drainage points at filling stations
3. ČSN 73 0804 FSB-Production facilities
4. ČSN 73 6060 Filling stations
5. ČSN 73 6059 Motor vehicle servicing and repair shops. Filling stations. Basic provisions

Part 14 Determination of the technical requirements for the alteration of buildings pursuant to Section 31
ČSN 73 0834 FSB-Alteration of buildings

Part 15 Determination of the number of extinguishers – Annex 4
1. ČSN EN 3-7 Portable fire extinguishers – Part 7: Characteristics, performance requirements and test methods
2. ČSN EN 3-6 Portable fire extinguishers – Part 6: Provisions for the attestation of conformity of portable fire extinguishers in accordance with EN 3 Part 1 to Part 5
3. ČSN EN 2 Fire classes

Part 16 Determination of the requirements with respect to fire and explosion danger – Section 25
1. ČSN EN 1127-1 Explosive atmospheres - Explosion prevention and protection – Part 1: Basic concepts and methodology
2. ČSN 33 2340 Electrical equipment in flammable or explosive atmospheres

Types of loosely laid conductors and cables for electrical distribution systems

		Type of conductor or cable		
A.	**Performing a function and controlling equipment involved in fire safety for buildings**	I	II	III
a)	internal broadcast pursuant to ČSN 73 0802, evacuation broadcast pursuant to ČSN 73 0831, equipment for acoustic alarm signalling pursuant to ČSN 73 0833, emergency sound system pursuant to ČSN EN 60849	**x**	**x***)	**x**
b)	emergency and anti-panic lighting	**x**	**x***)	**x**
c)	lighting for protected escape routes and deployment routes		**x**	**x**
d)	evacuation and fire lifts	**x**	**x***)	**x**
e)	ventilation for escape routes		**x**	**x**
f)	fixed firefighting systems	**x**	**x***)	**x**
g)	electrical fire signalling	**x**	**x***)	**x**
h)	equipment to remove smoke and heat	**x**	**x***)	**x**
i)	powering firefighting water pumps	**x**	**x***)	**x**
B.	**For electrical distribution systems in areas in fire sectors in selected types of buildings**			
a)	health care establishments			
	1. day nurseries		**x**	
	2. hospital wards		**x**	**x**
	3. intensive care units, resuscitation units, operating theatres		**x**	**x**
	4. sleeping quarters in social welfare establishments		**x**	**x**
b)	buildings with internal assembly areas (e.g. schools, theatres, cinemas, covered halls, congress halls, shopping centres, exhibition areas)			
	1. assembly area		**x**	
	2. areas where visitors are moving about		**x**	
c)	residential buildings (except for family homes)			
	1. movement areas		**x**	
d)	buildings accommodating more than 20 people (e.g. hotels, hostels, spas, colleges, dormitories, etc.)			
	1. common areas (halls, reception areas, dining rooms, refectories, restaurants)		**x**	

Legend:
I – $B2_{ca}$ cable
II – $B2_{ca,}$s1,d0 cable
III – cable operating in fire (with specified fire resistance)
*) – if located in protected escape routes

If there are several areas in a fire sector, all the requirements for the different areas shall be met for the fire sector.

Cables and conductors operating in fire and with a specified fire resistance of P or PH shall be placed in a covered, suspended or supported structure with a fire resistance functionality class (R) which ensures the stability of the cable distribution system or conductors for at least the period of their fire resistance class (R≥P or R ≥ PH). Fire resistance

P and PH and fire resistance functionality class R shall be demonstrated by testing.

Cables and conductors operating in fire shall be installed so that they are not disrupted by adjacent elements or systems, e.g. other installations and pipework systems, building elements and components, for at least the period of the required maintenance of functionality in fire.

More detailed definition of the technical requirements for the fire protection of equipment for firefighting and rescue work

1. Access routes in places with external firefighting water source connection points shall provide for the connection of firefighting equipment. In order to provide constant free access for mobile firefighting equipment, parking areas and external firefighting water points shall be marked pursuant to special legislation[11)].

2. Entrances onto land which is enclosed, fenced or otherwise made inaccessible and intended for access for firefighting equipment shall be designed with a minimum width of 3.5 m and height of 4.1 m.

3. Any dead-end single-lane access route longer than 50 m shall have a loop or vehicle turning area at the dead end.

4. The positioning, width and other technical parameters, including the construction of the parking area shall correspond to the technical parameters of high-rise firefighting equipment.

5. Buildings and parking areas for firefighting equipment shall be located 4 m away from the boundary of safety zones[12)] so as to provide for arrival and intervention outside the safety zones.

6. In all cases when water is to be used for extinguishing, amounts shall be provided so as to correspond to the values laid down in the Czech technical standard given in Annex 1 Part 1(7). If the nature of the flammable substances or equipment in a building excludes the use of water as an extinguishing agent, the building shall be provided with other suitable and effective extinguishing substances.

7. In buildings higher than 60 m, the fire tank shall be on the highest floor above ground level or on the roof. This tank shall be used as a reservoir for firefighting water for the firefighting pipes, with a capacity corresponding to the values laid down in the Czech technical standard given in Annex 1 Part 1(7).

8. At the entrance into garages with stacking systems, there shall be a ground plan of the area in a clearly visible place, including a section indicating the access to the different floors of the stacking system.

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11) Decree No. 30/2001 Coll., implementing the road traffic rules and the management of road traffic (traffic sign B 29 with supplementary board "Parking area for firefighting equipment").

12) Act No. 458/2000 Coll. on the business conditions and state administration in the energy sectors and amending certain Acts (the Energy Act), as amended.

Determination of the number of portable extinguishers

If the number and type of portable extinguishers with the required extinguishing capability cannot be determined pursuant to special legislation or a Czech technical standard, it shall be determined using the following relation:

$$n_{HJ} = 6. n_r$$

where n_{HJ} is the number of extinguishing units in the extinguisher
n_r is the number of extinguishers determined pursuant to the Czech technical standards given in Annex 1 Part 1(1) and (2)

For portable extinguishers certified pursuant to the Czech technical standard given in Annex 1 Part 15(2) which have the extinguishing capability shown on the type plate, the following shall apply:

n_{HJ} shall be calculated from the equation.

1. The appropriate type of portable extinguisher shall be selected for a given fire sector and the extinguishing capability of the extinguisher shall be determined from the type plate for the anticipated fire class pursuant to the Czech technical standard given in Annex 1 Part 15(3).
2. The magnitude of the extinguisher extinguishing unit HJ1 shall be determined from Table 1 for a given extinguishing capability of the extinguisher selected.
3. Value n_{HJ} shall be divided by value HJ1, thus obtaining the appropriate number of portable extinguishers of a given type. The result shall always be rounded up to the next whole number. The product of the number of extinguishers of one type and the corresponding extinguishing unit HJ1 shall be greater than or equal to value n_{HJ}.
4. If several types of portable extinguishers are selected, the products of the number of extinguishers of one type and the corresponding extinguishing unit HJ1 shall be added. The sum shall be greater than or equal to value n_{HJ}.

Table 1

Extinguisher extinguishing units HJ1	**Extinguisher extinguishing capability for fire classes A and B**	
	A	**B**
1	5 A	21 B
2	8 A	34 B
3	13 A	55 B
4	13 A	70 B
5	13 A	89 B
6	21 A	113 B
9	27 A	144 B
10	34 A	183 B
12	43 A	183 B
15	55 A	233 B

For portable extinguishers approved pursuant to Czech technical standard ČSN 38 9100 Manual extinguishers, which do not have the extinguishing capability shown on the type plate, conversion Table 2 for extinguishing units HJ2 shall apply. The number of HJ2 shall equal the number of HJ1 in a given fire sector.

Table 2

Extinguisher extinguishing units HJ2	**Extinguishers approved pursuant to ČSN 38 9100**		
	A	**B**	**A+B**
1		S 1.5, S2, H 1	
2	PG 2, V 6	P2, H 2	PG 2
3		S 6, Pě 10, H 4	Pě 10
4	V 10, Pě 10	H 6	
5			
6	PG 6	P 6	PG 6
9		H 10	
10	PG 10		PG 10
12	PG 12	P 12	PG 12
15			

Legend:
- S CO_2 extinguisher
- PG powder extinguisher with ABC powder or corresponding to ČSN 38 9100
- P powder extinguisher with BC powder
- V water extinguisher
- Pě foam extinguisher
- H halon extinguisher

Selected types of buildings shall be provided with extinguishers as follows:

Sales kiosks, which are buildings pursuant to special legislation[3)], shall be provided with at least one portable water or foam extinguisher with an extinguishing capability of at least 13A or a portable powder extinguisher with an extinguishing capability of at least 21A.
Family homes shall be provided with at least one portable extinguisher with an extinguishing capability of at least 34A.
Apartment buildings shall have portable extinguishers installed in the following amounts and types:

a) one portable powder extinguisher with an extinguishing capability of 21A intended for the building's main electrical energy distribution board,
b) one portable CO_2 extinguisher with an extinguishing capability of 55B intended for the lift machine room,
c) one portable water or foam extinguisher with an extinguishing capability of 13A or a portable powder extinguisher with an extinguishing capability of 21A for each 100 m^2 of floor area or part thereof in fire sectors intended for storage, if the floor area is larger than 20 m^2,
d) another portable water or foam extinguisher with an extinguishing capability of 13A or a portable powder extinguisher with an extinguishing capability of 21A for each 200 m^2 of floor area or part thereof for all floors in the building, not counting the floor area of the apartments in this area.

Hostel buildings shall have portable extinguishers installed in the following amounts and types:

a) in fire sectors intended for accommodation, one portable extinguisher with an extinguishing capability of 21A for every 12 people or part thereof, with a distance between portable extinguishers of less than 25 m, but always one per floor, the same also applying for fire sectors intended for accommodation in buildings with another purpose,
b) in fire sectors intended for storage and in service areas associated with accommodation with a floor area of over 20 m^2, one portable water or foam extinguisher with an extinguishing capability of 13A or a portable powder extinguisher with an extinguishing capability of 34A for each 100 m^2 of floor area or part thereof,
c) one portable powder extinguisher with an extinguishing capability of 21A intended for the building's main electrical energy distribution board,
d) one portable CO_2 extinguisher with an extinguishing capability of 55B intended for the lift machine room,
e) in other fire sectors, portable extinguishers shall be determined and installed pursuant to Section B of this annex.

Garage buildings shall have the following portable extinguishers installed:
a) in detached garages, one portable foam or powder extinguisher with an extinguishing capability of 183 B for each separate area (parking space),
b) in terraced garages, one portable foam or powder extinguisher with an extinguishing capability of 183 B for each separate area (parking space),
c) in public and terraced garages (with a common area for several parking spaces), one portable foam or powder extinguisher with an extinguishing capability of 183 B for the first 10 parking spaces or part thereof and another portable extinguisher of the same type for each 20 parking spaces or part thereof on one level (floor).

Providing the level of fire safety indicated in the fire safety or other documentation pursuant to special legislation is maintained[3)], the procedure pursuant to this annex need not be used.

Independent detection and signalling

Independent detection and signalling equipment shall be taken to mean

a) independent smoke alarms pursuant to Czech technical standard ČSN EN 14604, or
b) fire alarms pursuant to Czech technical standards in the ČSN EN 54 series "Electrical fire signalling", e.g. Part 5, Part 7 and Part 10; these alarms shall be used, for example, in electrical security system lines pursuant to Czech technical standards in the ČSN EN 50131 series "Alarm systems – Electrical security systems".

Requirements for fire protection when using buildings or parts of them relating to protected escape routes, interior alterations, access to wall hydrants and extinguishers

A.
Requirements for fire protection when using buildings or parts of them relating to protected escape routes

A.1 Objects made from flammable substances (hereinafter "flammable objects") may be placed on escape routes under the following conditions:

a) the distance of a flammable object away from parts of the building made from flammable materials, except for floors, or from another flammable object shall prevent the transmission of combustion and the distance shall not be less than 2 m,

b) a flammable object or part of it shall not be made from plastic, unless stipulated otherwise,

c) a flammable object shall not be positioned on a ceiling or soffit or in the area beneath a ceiling or soffit in the part of a protected escape route intended for the movement of people or the activities of fire protection units,

d) a flammable object shall be fixed so that it is not released when people are escaping or during the activities of fire protection units,

e) only one flammable object shall be positioned on a wall with an area of 60 m^2 in the area of a protected escape route. No more than three flammable objects shall be placed on the floor of a protected escape route,

f) a flammable object in the form of a "notice board" shall not be located in the area of a protected escape route if it is larger than 1.3 m^2 at a thickness of 4 mm; other flammable objects, unless stipulated otherwise in A.2., shall only be positioned if at least the same level of fire safety is achieved, while an area of 1.3 m^2 shall not be exceeded.

A.2. The following may also be located in protected escape routes:

a) one small dispenser for drinks, other goods or services per three floors,

b) plastic flowers, providing the area of such decorations on the wall does not project by more than 0.5 m^2 and the depth of such decorations does not exceed 0.1 m. The positioning of such decorations shall not reduce the minimum width of the escape route determined by calculation.

The requirements pursuant to A.1. a), c), d) and e) and A.4. shall not be affected.

A.3. Flammable objects not listed in A.1. and A.2. may be located in the area of protected escape routes if

a) they are chairs of non-flammable design with treated upholstery. When positioning more than two chairs, they shall be of non-flammable design and also the requirements pursuant to Section 19 (3) shall be met,

b) they are other seating, the upholstered part of which shall meet the requirements pursuant to Section 19(3) and they are made from a material which meets these requirements - a reaction to fire class of at least D and also an additional classification of at least "s2" pursuant to the Czech technical standard given in Annex 1 Part 5 or a degree of flammability of at least C2 pursuant to the Czech technical standard given in Annex 1 Part 1(3) and also the size of the object shall not be greater than the dimensions which are usual for normal chairs.

The requirements pursuant to A.1. a) and e) and A.4. shall not be affected.

A.4. The location of the objects listed in A.1. to A.3. shall not

a) affect the movement of people in a protected escape route or when entering it or leaving it, in particular when tripping, falling or rolling,
b) project into the minimum width of a protected escape route, as determined in the design or similar documentation or by calculation pursuant to the Czech technical standards given in Annex 1 Part 2,
c) prevent the opening or closure of doors on this route or at an entrance to it or exit from it.

A.5. When positioning elements of a safety system in a protected escape route, the requirements pursuant to A.1. d) and A.4. a) and c) shall be met, while the distance of a flammable object away from parts of the building made from flammable materials or from another flammable object shall prevent the transmission of combustion.

A.6. One flammable object of artistic or historical value may be positioned in a protected escape route, providing the dimensions do not exceed 2 x 2 m and providing the part of the building where the object is positioned is secured by

a) electrical fire signalling and also fixed extinguishing equipment, or
b) electrical fire signalling and a person capable of undertaking primary firefighting for the period when people are present in the building.

A flammable object shall not project into the area of a protected escape route by more than 5 cm. Textile flammable objects shall not be permitted.

The requirements pursuant to A.1. a), b), c), d) and e) and A.4. a) and c) shall apply similarly.

A.7. Flammable objects and objects pursuant to A.6. shall only be positioned on protected escape routes with maximum capacity.

A.8. The requirements pursuant to A.1. d) and A.4 shall apply for the positioning of non-flammable objects.

A.9. No flammable objects shall be placed in a part of an escape route acting as a fire lobby.

A.10. The requirements pursuant to this annex shall not relate to

a) flammable objects or the flammable parts of building elements which form part of a building, providing their use is in accordance with the fire safety arrangements, other similar documents or the Czech technical standards given in Annex 1 Part 2,
b) surface treatment carried out in accordance with the fire safety arrangements, other similar documents or the Czech technical standards given in Annex 1 Part 2.

B.
Requirements for fire protection when using buildings or parts of them relating to interior alterations and assembly areas

B.1 Interiors not subject to control pursuant to special legislation shall meet the following requirements:

a) flammable substances or substances which drip or fall during thermal decomposition shall not be used

1. above places along which people escape,
2. in assembly areas in the entire soffit and the space beneath the ceiling;

b) flammable substances shall not be used in other areas intended for more than 10 people, if the total area of use occupies more than 30 % of the area beneath the ceiling. Nor shall flammable substances be used in areas in front of doors and behind doors in an area corresponding to three times the width of the doors, defined by an arc to the axis of the doors.

B.2. Flammable substances or substances which drip or fall during burning or thermal decomposition shall not be used above outdoor assembly areas pursuant to the Czech technical standard given in Annex 1 Part 1(5).

C.
Requirements for access to wall hydrants and extinguishers

C.1 When a building is in use, free access to wall hydrants shall be maintained. Free access shall also be taken to mean designs whereby the inlet valve, flowline or hose system are positioned

a) in a sealed hydrant cabinet, providing no aids are required to break the seal, or
b) in a locked hydrant cabinet, providing the device for unlocking it is visibly positioned in the immediate vicinity.

C.2 The installation of equipment restricting or blocking the operation of values shall not be permitted.

C.3 The access requirements pursuant to C.1 shall apply similarly for the positioning of extinguishers.

Requirements for fire protection when using buildings or parts of them exposed to the presence of flammable liquids

For the purposes of this Decree, the presence of flammable liquids shall be taken to mean the presence of flammable liquids regardless of their hazard class in quantities and under conditions whereby they are capable of releasing heat during fires.

A.
Buildings designed pursuant to ČSN 65 0201:2003

A.1 Buildings or parts of them used as workplaces (in particular workshops, laboratories, repair shops) with

a) an imposed fire loading in the fire sector equal to a maximum of 30 kg/m^2, also in cases where the fire loading includes flammable liquids, or

b) in an entire fire sector individually or jointly, less than 250 litres of flammable liquids, such volume not including more than 20 litres of low-boiling liquids and 50 litres of flammable liquids in hazard class I,

may be used to store flammable liquids in a quantity pursuant to b), unless stipulated otherwise in the design documentation approved by the building control authorities or another similar document.

For the purposes of this Decree, the term low-boiling liquids shall be taken to mean flammable liquids with a flash point below 0 °C and also with a boiling point below 35 °C under normal conditions.

With a variable presence of flammable liquids, the following conversion to volume of flammable liquid may be used for the purpose of converting the fire loading pursuant to A.1 a): 1 litre of flammable liquid represents 2.5 kg/m^2 when converted to the equivalent calorific value of wood.

A.2 In the presence of flammable liquids pursuant to A.1, the following shall be undertaken:

a) they shall be prevented from spilling outside the fire sector,

b) the fire sector shall be ventilated to an extent restricting the development of an explosive atmosphere,

c) contact between flammable liquids or vapours from them and a source of ignition shall be prevented.

A.3 At workplaces forming one fire sector together with an area for applying flammable liquid paints, it shall be permissible to store a maximum of 50 litres of flammable liquid paint of all hazard classes in lockable containers.

B.
Buildings designed pursuant to ČSN 65 0201 prior to the entry into force of ČSN 65 0201:2003

B.1 Storage of flammable liquids in workplaces

In buildings or parts of them used as workshops, laboratories, repair shops or similar workplaces, structurally separate areas may be used to store a maximum of 250 litres of flammable liquids, including a maximum of 50 litres of flammable liquids in hazard class I. If exclusively flammable liquids in hazard class IV are involved, such workplaces may be used to store and use a volume of up to 1000 litres. Fragile transportation packaging shall only be used for volumes up to 5 litres and shall be stored in lockable non-flammable cabinets.

In sales areas outside flammable liquids stores, it shall be permissible to store a maximum of 2 m^3 of flammable liquids, including 0.4 m^3 in hazard class I. The liquids shall be stored in transportation packaging or pumping devices; fragile transportation packaging shall only be used for volumes up to 5 litres, other packaging up to a volume of 20 litres.

In service and sales areas in kiosks at filling stations outside stores, 5 m^3 of flammable liquids may be stored, including a maximum of 0.5 m^3 in hazard class I.

Areas in health care establishments may be used to store drugs containing a maximum of 500 litres of flammable liquids, including a maximum of 100 litres of liquid in hazard class I. packages with a volume greater than 1 litre shall be stored in lockable cabinets.

B.2. Storage of low-boiling flammable liquids

In laboratories, workshops and areas in health care establishments, low-boiling flammable liquids may be stored in total maximum quantities of

a) 10 litres in fragile transportation packages,
b) 20 litres in other packages.

Carbon disulfide shall be stored under a layer of water of at least 20 mm.

Low-boiling flammable liquids shall only be stored separately from other flammable liquids; they may be stored in fragile transportation packages up to a volume of 1 litre.

B.3. Storage of flammable liquids in hazard class IV at workplaces for metallurgical and engineering production

At workplaces for metallurgical and engineering production with a ground area of at least 5000 m^2 with non-flammable building elements and at least 7000 m^2 with mixed building elements, it shall be permissible to store flammable liquids in hazard class IV in a maximum quantity of 15 m^3 in containers and transportation packaging, including a maximum of 1 m^3 in packages with a volume of less than 200 litres.

The handling surface for the storage of flammable liquids in hazard class IV in containers and transportation packaging shall be made from non-flammable materials, resistant to the chemical effects of the flammable liquid for which it is intended. This surface shall be arranged so as to contain a quantity of flammable liquid equal to the content of the largest container or transportation package. The smallest distance between the edges of handling surfaces shall be 100 m. Handling surfaces shall be arranged so that containers and transportation packages are stored at least 1.5 m from their edge. The total area of handling surfaces shall not be greater than 4 % of the ground area of the workplace and a maximum of 200 m^2.

Flammable liquids shall not be poured into other containers on handling surfaces.

B.4. Storage of flammable paints

At workplaces forming one fire sector together with an area for applying flammable liquid paints, the requirements laid down in A.3 shall be observed.

C.
General requirements for the use of buildings in the presence of flammable liquids

C.1 General

C.1.1 Packages and tanks holding flammable liquids shall be provided with safety markings drawing attention to their content and the hazard with respect to fire protection. On underground and sunken tanks, the safety markings shall be positioned in the immediate vicinity of the tanks. If the placing of a product on the market does not entail compulsory marking with the content of flammable liquid and if the original packaging is involved, a method of marking other than marking every package may be used, for example marking a part of the store.

The requirement for marking shall not apply to fillings in machines and equipment.

C.1.2 Openings in the peripheral structures of closed stores shall be designed so as to prevent objects being thrown in.

C.1.3 Loose stores, or parts of stores, which are not provided with peripheral walls (partially closed stores, restricted stores) pursuant to the Czech technical standard given in Annex 1 Part 1(2) shall be fenced to a height of at least 1.8 m with a non-flammable material. The fencing shall be at least 3 m away from the nearest transportation package, container and the external walls of emergency sumps. There shall be no flammable liquids within this distance. The area inside the fencing shall be permanently provided with grass and woody plants.

C.1.4 Areas with flammable liquids shall be marked with the appropriate safety markings.

C.1.5 Areas with flammable liquids shall be marked with safety markings within a radius of 5 m from the mouths of tank venting pipes or from technological equipment or from underground tank shafts drawing attention to the prohibition of smoking and naked flames.

C.1.6 Substances stained with flammable liquids shall be immediately and safely removed from areas with flammable liquids.

C.1.7 No objects shall be placed at the entrances to and exits from areas with flammable liquids or in their immediate vicinity.

C.1.8 Objects placed in areas with flammable liquids or in their vicinity shall be positioned so that, if there is any change in their position, no restriction is imposed on the ability to use entrances to or exits from the areas.

C.1.9 Areas with flammable liquids shall be secured

a) against leakage, running and seeping of flammable liquids stored in packages with a volume of 200 litres and over due to leaks in the facility,
b) against uncontrolled contact between such liquids and vapours from them and possibly sources of ignition,
c) against uncontrolled contact between flammable liquids
    1. and other flammable liquids or combustible substances except for atmospheric oxygen, or

2. substances if such contact would result in the development of heat as a possible source of ignition.

C.1.10 Flammable liquids shall be stored in packaging intended for them.

C.1.11 Areas with flammable liquids shall be secured against the hazardous effects of static electricity.

C.2 Storage methods

C.2.1 Packages shall be secured against falling and damage by transportation or other equipment.

C.2.2 The total stacking height for the loose storage of packages containing flammable liquids shall not be over 2 m.

C.2.3 Stores containing transportation packages and containers inside buildings shall have a space between the top of the transportation packages and lights in the ceiling or on the walls of at least 0.8 m[13)].

C.2.4 Full packages and empty uncleaned packages with one opening shall not be stored with the opening at the bottom.

C.2.5 Areas reserved for the storage of empty uncleaned packages shall be marked with the inscription "Empty packages".

C.2.6 Mobile tanks may be located in areas of buildings at risk of fire for important reasons (for example, repair). This shall only be temporary, for a predetermined period of time. Fire protection requirements shall also be determined.

C.3. Common storage of flammable liquids and other substances

C.3.1 Flammable liquid stores shall not contain other substances and products, unless they are directly associated with the flammable liquids being stored and are capable of

a) initiating fire in such stores,
b) propagating fire or accelerating the propagation of fire inside or outside the stores, or
c) hampering the evacuation of people or firefighting.

In such stores, there shall be no explosives, including explosive initiation devices, matches, pyrotechnic products or components of them and substances with a tendency to self-ignition. Substances which, after being saturated in a flammable liquid, may increase the danger of self-ignition of the flammable liquid shall be stored so that they cannot be stained with spilled liquid.

C.3.2 In portable flammable liquid stores, where it is necessary to store solid flammable substances along with the liquids and which do not have capabilities pursuant to C.3.1 a) to c), such substances shall be counted in the total quantity as if they were flammable liquids; the limit value for portable stores shall not be exceeded. Liquid substances and solid flammable substances shall be counted by volume, solid flammable substances being counted as 0.001m^3 per litre. The calorific value of the substances shall not be taken into account. Solid flammable substances and flammable liquids shall be separated so as to prevent flammable liquids running into places where solid flammable substances are stored.

C.4 Handling

C.4.1 The impermeability of the interspace on double-skinned or partially double-skinned

[13)] E.g. Act No. 102/2001 Coll. on general product safety and amend certain other Acts, as amended.

tanks and distribution pipe sleeves shall be checked at least once a year. For underground double-skinned tanks, the impermeability shall be constantly monitored.

C.4.2 The inside of tanks shall be checked, repaired and cleaned in an inert atmosphere or at a concentration of flammable liquid vapours of less than 25 % of the lower explosibility limit.

C.4.3 The functionality of emergency sumps on free stores and open technological equipment shall be subjected to the regular removal of rainwater so that the entire capacity of the sump is available.

D.

This annex shall not apply, if stipulated otherwise

a) by the building documentation or another similar document pursuant to which the building was designed, constructed and put into use or
b) the manufacturer.

Nor shall this annex apply when the requirements of special legislation are stricter[14)].

14) E.g. Government Regulation No. 406/2004 Coll. on the detailed requirements for health and safety at work in explosive atmospheres, Government Regulation No. 11/2002 Coll. laying down the appearance and positioning of safety signs and signals, as amended by Government Regulation No. 405/2004 Coll.

Safety distances between consumers and flammable materials

Consumer		Safety distance	
Type of fuel	Name - standard	In direction of main emission [mm]	in other directions [mm]
Solid	Consumers for domestic cooking - ČSN 06 1201:		
	– cookers	750	200
	– steamers	300	200
	Consumers for catering businesses:		
	– steamers	800	200
	– boilers	300	200
	Consumers for heating water - ČSN 06 1201:		
	– water tank heaters	300	200
	Consumers for heating or cooking - ČSN 06 1201:		
	– stoves with hotplates	750	100
	– stoves	500	200
	– wood-burning stoves	500	200
	– wood-burning fireplaces	800	200
Liquid	Consumers for heating water - ČSN 06 1318:		
	– oil-burning water tank heaters	300	200
	Consumers for heating or cooking:		
	– stoves with vaporising burners and fume hoods	500	100
	– oil-burning stoves with hotplates	750	100
Gas	Consumers for domestic cooking - ČSN 06 1401:		
	– cookers (including combined “gas-electric”)	750	10
	– built-in cooking units (including combined “gas-electric”)	750	10
	– stand-alone ovens	50	10
	– spits (grills)	500	50
	Consumers for catering businesses - ČSN EN 203-1:		
	– boilers	-	100
	– cookers (including combined “gas-electric”)	750	50
	– ovens	200	50
	– bains-marie	100	100
	– warming cabinets	100	100
	– heated tables	100	100
	– deep-fryers	500	50
	– toasters	500	50
	Consumers for heating water - ČSN EN 26:		
	– geysers	50	10
	Consumers for heating:		
	– heaters	500	100
	– irons with heating systems	100	50
	– instantaneous hot-water boilers	50	10
	Consumers for cooling:		
	– refrigerators	50	10

Consumer		Safety distance	
Type of fuel	In direction of main emission [mm]	In direction of main emission [mm]	in other directions [mm]
Various types	Washing machines with heating systems - ČSN 06 1416	200	100
	Hot-water boilers up to 50 kW - ČSN 07 0245	100 (300 in a direction perpendicular to the ashpan opening)	100
	Air heaters up to 50 kW - ČSN EN 13842	800	100
	Laundry boilers	500	100
Electric	Consumers not designed to be able to stand next to flammable materials (for example, heaters filled with heat-carrying media - oil, convector heaters, hot-air fans)	500	100
	Consumers for heating water - ČSN EN 60335-2-35 ed. 2: – instantaneous water heaters	50	10
	Consumers for heating - ČSN EN 60531: – thermal storage heaters	500	100

Safety distances may be shortened in accordance with the requirements laid down in the Czech technical standard given in Annex 1 Part 8.