

**RUSSIAN FEDERATION**  
**FEDERAL LAW**  
**Technical Regulations on Fire code**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

*Adopted by  
the State Duma on  
July 4, 2008*

*Approved by the  
Federation Council on  
July 11, 2008*

**SECTION I. GENERAL PRINCIPLES OF FIRE SAFETY**

**Chapter 1. General provisions**

**Article 1. Purpose and scope of the technical regulations**

1. This federal law, adopted in order to protect life, health and property of citizens and legal persons, state and municipal property from fires, defines the basic provisions of technical regulations in the field of fire safety and specifies the general requirements of fire safety to protected objects (products), including buildings and facilities, industrial facilities, fire safety products and products for general use. Technical regulations adopted in accordance with the Federal Law [of December 27, 2002 N 184-FZ](#) "On Technical Regulation" (hereinafter - the Federal Law "On Technical Regulation"), do not apply to the part containing the fire safety requirements to such products other than requirements established by this Federal Law.

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2. The provisions of this Federal Law on fire protection facilities are binding if:

- 1) the design, construction, major repair, renovation, modernization, changing functionality, maintenance, operation and disposal facilities protection;
- 2) the development, adoption, implementation and execution of technical regulations adopted in accordance with the Federal [Law](#) "On Technical Regulation", containing the fire safety requirements, as well as regulations on fire security

(in the ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 3) the development of technical documentation for the objects of protection.

3. For objects of protection for special purposes, including military facilities, nuclear power plants, production facilities, processing facilities, storage of radioactive and explosives materials, objects of destruction and storage of chemical weapons and explosives, ground facilities and space launch facilities, mines, facilities, located in the woods, along with this federal law must be followed fire safety requirements established by regulations of the Russian Federation.

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4. Technical regulations for fire safety nuclear weapons and related design, production, operation, storage, transportation, disposal and recycling of its components, as well as in the field of fire safety of buildings, facilities organizations the nuclear weapons complex of the Russian Federation shall be established by the legislation of the Russian Federation.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Article 2. Key Concepts**

For purposes of this Federal Law, the main concepts defined [in Article 2](#) of the Federal Law "On technical regulation", [Article 1](#) of the Federal Law of December 21, 1994 N 69-FZ "On Fire Safety "(hereinafter - the Federal Law" On Fire " ), and the following basic concepts:

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1) emergency exit - the door, hatch or another way, which lead to escape route, directly to the outside or to a safe area, used as an additional outlet for rescue, but are not considered when evaluating the desired number and size of escape routes and emergency exits and which meet the requirements for safe evacuation in case of fire;

2) a safe area - an area in which people are protected from the hazards of fire or where there are no fire hazards or do not exceed limit values,

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

3) Blast - fast chemical transformation of the environment, accompanied by the release of energy and the formation of compressed gases;

4) an explosive mixture - a mixture of air or oxidant and combustible gases, vapors of flammable liquids, combustible dusts or fibers, which at a certain concentration and event source is capable of initiating an explosion explode

5) explosive object of protection - the state of the defense characterized the possibility of an explosion and fire development or fire and subsequent explosion,

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

6) combustible fluids - an environment that can be ignited at to a source of ignition;

7) Declaration of fire safety - a form of conformity assessment, which contains information on fire safety measures to ensure the protection of the facility standard value fire risk,

8) valid fire risk - the risk of fire, the level of which is valid and justified on the basis of socio-economic conditions;

9) individual fire risk - the risk of fire, which could lead to loss of life as a result of exposure to hazardous factors of fire,

10) ignition source - a means of energy impact, triggering the emergence of combustion;

11) class structural fire hazard buildings and fire compartments - classification performance of buildings, structures, buildings, fire compartments, determined by the degree of participation in the development of building structures and the formation of a fire fire hazards;

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12) class of functional fire hazard buildings and fire compartments - classification performance of buildings, structures, fire compartments defined purpose and operating these buildings, structures, fire compartments, including the features of the implementation in these buildings, structures and fire compartments of manufacturing processes,

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

13) outdoor installation - a set of devices and technology equipment located outside of buildings and structures

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

14) required the evacuation - the time from when a fire, during which people must evacuate to a safe area without causing harm to life and health from exposure to fire hazards,

15), the object of protection - products, including property of individuals or legal entities, state or municipal property(Including those that are located in areas of settlements and buildings, facilities, vehicles, processing plants, equipment, machines, products, and other property), which are installed or to be installed fire safety requirements for fire prevention and protection in case of fire,

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

16) oxidants - substances and materials that have the ability to react with combustible materials, causing them to burn, and increases in intensity;

17) fire hazards - of fire, which can cause injury, poisoning or death, and (or) in property damage,

18) the fire - the place of the original fire;

19) the primary means of fire - extinguishing agents used for fire-fighting in the early stages of its development

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

20) fire safety protection object - the object's state protection, characterized by the possibility of preventing the emergence and development of fire, and the impact on people and property of fire hazards;

21) fire hazardous substances - the state of substances and materials, characterized by the possibility of combustion or explosion of substances and materials;

22) fire hazard protection object - the state of the defense characterized the possibility of the emergence and development of fire, and the impact on people and property hazards fire,

23) fire alarm - a set of technical means for fire detection, processing, transmission in a given form of notice of the fire, special information and (or) issuing commands to set the automatic fire extinguishing and inclusion of executive systems, smoke protection systems, technology and engineering equipment, and other fire protection devices,

24) Fire Station - the object of fire, which are storage spaces and fire equipment maintenance, office space to house the personnel, premises for receiving notifications about the fire, technical and support facilities necessary to perform the tasks assigned to the fire department,

25) fire detector - technical means for the signal of the fire,

26) fire alarms - technical means designed to fire warning,

27) fire compartment - the part of the building and facilities leased by fire walls and fire floors or coated with a fire resistance design providing non-fire beyond the fire compartment for the duration of a fire

(in the ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

28) fire risk - a measure of the feasibility of the fire hazard of the object of protection and its effects on people and material values;

29) Fire and explosion hazard of substances and materials - the ability of substances and materials to form a combustible (fire hazard or explosive) environments characterized their physicochemical properties and (or) behavior in fire conditions,

30) fire hazardous (explosive) area - a part of a closed or open space within which continuously or periodically turning combustible materials and where they can be at a normal process or its violation (crash)

31) fire resistance design (fill openings fire barriers) - the time from the beginning of fire exposure in the standard tests until one of valuation for the design (fill openings fire barriers) limit states,

32) receiving device-control fire - Technical means for receiving signals from fire detectors to monitor the integrity of the loop fire alarm lights and audible alarm events, the formation of the start pulse start a fire control unit;

33) fire control device - the technical means for transmitting control signals automatic fire extinguishing, and (or) the inclusion of the executive units smoke protection systems, and (or) warning people about fire, as well as for the transmission of control signals to other devices, fire protection,

34) production facilities - industrial and agricultural purposes, including storage, facilities engineering and transport infrastructure (rail, road, river, sea, air and pipeline transportation), communication facilities,

35) fire barrier - building structure with specified fire-resistance rating and the class of constructive fire danger design element of volume of the building or other solution that is designed to prevent the

spread of fire from one part of the building structure to another or between buildings, structures, vegetation,

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

36 ) fire break (fighting distance) - is the normalized distance between the buildings, structures, installed to prevent the spread fire,

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

37) transmission system fire alarm systems - a set of joint actions of technical means for the transmission of the channels of communication and reception in a centralized point monitoring fire alarm in the protected object, service, control and diagnostic notifications, and (in the presence of the return channel) to send and receive remote control commands,

38) fire alarm system - a set of attitudes fire alarm system, installed on a single object, and controlled from a common fire post,

39) fire protection system - a complex of organizational and technical means, excluding the possibility fire protection at the facility;

40) smoke protection system - a complex of organizational measures, space planning solutions, systems engineering and technical means to prevent or limit smoke hazard buildings in case of fire, as well as the impact of fire hazards on people and property,

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

41) fire protection system - a complex of organizational and technical means aimed at protection of people and property from the effects of fire hazards, and (or) limiting effects of fire hazards in the object of protection (products),

Item 42)- Repealed.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

43) social fire risk - the risk of leading to death of a group of people from exposure to fire hazards;

44) fire resistance of buildings and fire compartments - classification performance of buildings, structures, buildings and fire compartments defined limits fire resistance of structures used for the construction of buildings, structures, buildings and compartments

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

45) The facilities warning and evacuation - a set of hardware (control devices sirens, fire alarms), intended for fire warning,

46) technological environment - substances and materials, applying to the processing equipment (process system);

47) the stability of the object of protection in case of fire - a property of protection to keep the structural integrity and (or) functionality when exposed to fire hazards and the secondary effects of fire hazards;

48) emergency exit - exit leading to the escape route, directly to the outside or to a safe area,

49) emergency exit path (escape route) - the path of movement and (or) the movement of people, leading directly to the outside or to a safe area that meets the requirements for safe evacuation in case of fire,

50) evacuation - the process of organized independent movement of people directly to the outside or to a safe area of the premises in which it is possible to impact on people fire hazards.

### **Article 3. Legal basis for technical regulations in the field of fire safety**

The legal basis for technical regulations in the field of fire safety are the [Constitution of](#) the Russian Federation, recognized principles and norms of international law, international treaties of the Russian Federation, the Federal [Law](#) "On Technical Regulation", Federal [Law](#) "On Fire" and this Federal Law, under which developed and adopted regulations of the Russian Federation, the governing fire safety protection objects (products).

### **Article 4. Technical regulation in the field of fire Security**

1. Technical regulations for fire safety is:

1) establishment of a regulatory legal acts of the Russian Federation and the regulations on fire safety fire safety requirements for products, processes of design, production, operation, storage, transportation, marketing and utilization,

2) legal regulation of relations in the application and the use of fire safety,

3) legal regulation of relations in the field of conformity assessment.

2. For the normative legal acts of the Russian Federation on fire safety related technical regulations adopted in accordance with the Federal [Law](#) "On Technical Regulation", federal laws and other normative legal acts of the Russian Federation, establishing mandatory for fire safety requirements.

(in ver. Federal Law [on 10.07.2012 N 117-FZ](#) )

3. For regulations on fire safety are national standards, codes of practice, containing the fire safety requirements, and other documents containing the fire safety requirements, the use of which, on a voluntary basis, compliance with this Federal Law.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

4. If the provisions of this Federal Law (except for the provisions of Article 64, paragraph 1 of Article 82, Part 7 of Article 83, Article 84, section 12, Parts 1.1 and 1.2 of Article 97 of this Federal Law) provide for higher fire safety requirements than those in force prior to the entry into force of the relevant provisions of this Federal Law regarding the protection of objects that have been put into operation or the project documentation which was aimed at examination before the date of entry into force of the relevant provisions of this Federal Law applied previously existing requirements. However,

as to protect the objects, which were carried out major repairs, reconstruction or modernization, the requirements of this Federal Law shall be applied to the part corresponding to the volume of major repair, reconstruction or modernization.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 5. Fire safety protection facilities**

1. Each object must have a protection system for the fire safety.
2. The purpose of the fire safety system of the object is to prevent the fire protection, safety of persons and protection of property by fire.
3. The system of fire safety protection object includes a system of fire prevention, fire protection systems, a set of organizational and technical measures to ensure fire safety.
4. Fire safety system to protect the object must contain a set of measures that exclude the possibility of exceeding the allowable values of fire risk, herewith, aimed to prevent the risk of harm to third parties as a result of the fire.

### **Article 6. Matching criteria of the object of protection with fire safety**

1. Fire safety object of protection is provided by one of the following conditions:
  - 1) fully complied with fire safety requirements established by technical regulations adopted in accordance with the Federal [Law](#) "On Technical Regulation", and fire risk does not exceed the allowable values established by this Federal the law;
  - 2) fully complied with fire safety requirements established by technical regulations adopted in accordance with the Federal [Law](#) "On Technical Regulation", and regulations on fire safety.  
(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )  
Part 2 .- No longer in force.  
(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )
3. When the mandatory fire safety requirements established by technical regulations adopted in accordance with the Federal [Law](#) "On Technical Regulation", and regulatory requirements for fire safety and to protect the facilities that have been put into operation or the project documentation which was aimed at examination before the date of entry into force of this Federal Law, the calculation of fire risk assessment is not required.  
(in ver. Federal Law [from 10.07.2012 N 117-FZ](#) )
4. Fire safety in urban and rural settlements, urban districts and closed administrative-territorial formations provided as part of the fire safety measures relevant state authorities, local self-government in accordance with Article 63 hereof.

5. The owner of the object of protection, or person in possession of the object of protection of the right of economic management, efficient management, or other legal basis, by federal law or by contract, shall, within the implementation of fire safety measures in accordance with Article 64 of this Federal Law to develop and submit a notification procedure declaration of fire security.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

6. Calculations by the Fire Risk Assessment is an integral part of fire safety declaration or declaration of industrial security (at the sites for which they should be developed in accordance with the legislation of the Russian Federation).

7. Procedure for the settlement of the fire risk is determined by the regulations of the Russian Federation.

8. Development of fire safety declaration is not required to justify the fire safety fire safety products and products for general use.

## **Chapter 2. Classification of fires and fire hazards**

### **Article 7. The purpose of the classification of fires and fire hazards**

1. Classification of fires by type of combustible material used to refer to the application of fire extinguishing equipment.

2. Classification of fires in the fire of their use in determining the composition of forces and units of fire protection and other services needed for fighting fires.

3. Classification of fire hazards used to justify the fire safety measures necessary for the protection of people and property in case of fire.

### **Article 8. Classification of fires**

Fires are classified by type of combustible material, and are divided into the following classes:

- 1) solid fuel fires of substances and materials (A);
- 2) fires of flammable liquids or melting solids and materials (B);
- 3) gas fires (C);
- 4) fires metal (D);
- 5) fires of flammable substances and materials of electric, under voltage (E);
- 6) fires of nuclear materials, radioactive waste and radioactive substances (F).

### **Article 9. Fire hazards**

1. To fire hazards that affect people and property are:

- 1) the flame and sparks;
- 2) heat flux,
- 3) high temperature environment,
- 4) increased concentration of toxic products of combustion and thermal decomposition,
- 5) lower concentration of oxygen,
- 6) reduction of visibility in smoke.

2. By concomitant manifestations of fire hazards are:

1) fragments of the destroyed buildings, facilities, vehicles, industrial plants, equipment, components, products, and other property;

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2) radioactive and toxic substances and materials into the environment of the damaged processing plants, equipment, components, products, and other property,

3) removal of high voltage to the conductive parts of the process plants, equipment, components, products, and other property,

4) the hazards of explosion, which occurred as a result of a fire

5) the impact of fire extinguishers.

### **Chapter 3. Indicators and fire and explosion hazard classification and Fire hazards of substances and materials**

#### **Article 10. The purpose of the classification of substances and materials for fire and explosion hazard and fire risk**

1. Classification of substances and materials on fire and explosion hazard and fire risk is used to establish the requirements Fire safety in obtaining substances and materials, use, storage, transportation, processing and disposal.

2. To establish requirements for fire safety for construction of buildings, structures, and systems for fire protection classification of construction materials used for fire danger.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

#### **Article 11. Indicators of fire and explosion hazard and fire risk substances and materials**

1. The list of indicators needed to assess the fire and explosion hazard and fire risk substances and materials, depending on their physical state is given in Table 1 of the annex to the present Federal Law.

2. Methods for determination of fire and explosion hazard indicators and fire hazards of substances

and materials listed in Table 1 of the annex to the present federal law establishing regulations on fire safety.

3. Indicators of fire and explosion hazard and fire risk substances and materials used to establish requirements for the use of substances and materials and the calculation of the fire risk.

### **Article 12. Classification of substances and materials (except construction, textiles and leather materials) fire danger**

1. Classification of substances and materials for fire danger based on their properties and the ability to form dangerous factors of a fire or explosion.

2. Flammability substances and materials are divided into the following groups:

1) non-combustible - substances and materials, unable to burn in air. Noncombustible materials may be fire and explosion hazard (Eg, oxidizers or substances that emit flammable products in contact with water, oxygen, air, or to each other),

2) slow-burning - substances and materials that can burn in air when exposed to an ignition source, but unable independently on after removing it,

3) Fuel - substances and materials, spontaneous combustion and ignite exposed to an ignition source and burn yourself after its removal.

3. Methods of test for flammability of substances and materials are set regulations on fire safety.

4. Of flammable liquids, flammable and release of highly hazardous flammable liquids, ignition vapor occurs at low temperatures, certain regulations on fire safety.

### **Article 13. Classification of construction, textile and leather materials for fire hazard**

1. Classification of construction, textile and leather materials of fire danger based on their properties and the ability to form a fire hazard.

2. Fire hazard construction, textiles and leather materials is characterized by the following properties:

1) flammability;

2) flammability,

3) the ability of flame propagation on the surface,

4) smoke-forming ability,

5) the toxicity of the combustion products.

3. Flammability building materials are divided into fuel (D) and non-combustible (NG).

4. Building materials are nonflammable the following parameter values flammability determined experimentally: the increase in temperature - no more than 50 degrees Celsius, the loss sample

weight - no more than 50 percent, the duration of sustained flaming - no more than 10 seconds.

5. Building materials that do not meet at least one of the specified in Section 4 of this Article parameter values are flammable. Combustible building materials are divided into the following groups:

1) combustible (G1) with the flue gas temperature to 135 ° C, the extent of damage on the length test sample of more than 65 percent by weight of the amount of damage the test piece is over 20 percent, independent burning duration of 0 seconds,

2) moderately flammable (T2) with the flue gas temperature is not more than 235 degrees Celsius, the extent of the damage along the length of the test sample is 85 percent, the degree of damage to the mass of the test sample is not more than 50 percent, independent burning duration to 30 seconds;

3) normally flammable(T3) with the flue gas temperature to 450 ° C, the extent of damage on the length of the test sample of more than 85 percent, according to the degree of damage mass of the test sample is not more than 50 percent, the duration of self-burning is not more than 300 seconds,

4) strongly flammable (T4) with flue gas temperature 450 ° C, the extent of damage on the length of the test sample of more than 85 percent by weight of the amount of damage experienced by more than 50 percent of the sample, the length independent burning more than 300 seconds.

6. The materials relating to the Flammability G1 - G3, not be burning droplets of melt during the test (for materials related to the flammability group G1 and G2, is not allowed droplets of melt). For other non-combustible building materials fire danger does not represent standardized.

7. Flammability flammable building materials (including floor carpets), depending on the critical surface heat flux divided the following groups:

1) inflammable (B1), with the critical value of the surface heat flux of more than 35 kilowatts per square meter,

2) moderate inflammable (B2) with the critical value of the surface heat flux of at least 20 but not more than 35 kilowatts per square meter,

3) inflammable (B3) with the critical value of the surface heat flux density of less than 20 kilowatts per square meter.

8. For flame spread over the surface of flammable construction materials (including floor carpets), depending on the critical surface heat flux into the following groups:

1) evanescent (RP1) with the critical value of the surface heat flux of more than 11 kilowatts per square meter,

2) slightly spreading (RP2) with the critical value of the surface heat flux of at least 8 but not more than 11 kilowatts per square meter,

3) moderately spreading (RP3) with a critical value of the surface heat flux of at least 5 but no more than 8 kilowatts per square meter;

4) strongly spreading (WP4), with the value of the critical surface heat flux less than 5 kilowatts per square meter.

9. On smoke-forming ability of combustible construction materials, depending on the values of the smoke divided into the following groups:

- 1) low-smoke-forming ability (R1), a ratio of less than 50 smoke square meters per kilogram
- 2) with moderate smoke-forming ability (R2) with smoke production rate of at least 50 but not more than 500 square meters per kilogram,
- 3) with a high smoke-forming ability (R3), a ratio smoke more than 500 square meters on pounds.

10. The toxicity of the combustion products combustible building materials are divided into the following groups according to Table 2 of the Annex to this Federal Law:

- 1) low risk (T1),
- 2) moderate hazardous (T2);
- 3) high-risk (T3),
- 4) is extremely dangerous (T4).

11. Classes of fire danger based on groups of fire danger building materials are listed in Table 3 of the Annex to the present Federal Law.

12. Flooring Carpet flammability group not determined.

13. Textile and leather materials flammability subdivided into flammable and inflammable. Fabric (woven) is classified as flammable material if, when tested, the following conditions are met:

- 1) the flaming any of the specimens tested at ignition on the surface, more than 5 seconds,
- 2) any of the samples tested at the ignition from the surface, burns to one of its sides,
- 3) cotton wool comes under any of the test specimens,
- 4) Surface flash any of the samples distributed by more than 100 millimeters from the ignition point from the surface or edge;
- 5) the average length of char-site any of the samples tested at a flame and the surface or edges, is more than 150 millimeters.

14. For the classification of construction, textiles and leather materials should be used flame spread index (1) - conditional dimensionless parameter that characterizes the ability of materials or substances ignite, spread over the surface of the flame and heat output. Flame spread materials are divided into the following groups:

- 1) do not spread flame over the surface with a flame spread index of 0,
- 2) slow the spread of fire on the surface, with flame spread index of not more than 20;
- 3) rapid spread of fire on the surface, having a flame spread index of 20.

15. Test methods to determine the fire danger classification of construction, textile and leather materials set regulations on fire safety.

## **Chapter 4. Indicators of fire and explosion hazard and fire hazard classification and technological environments for fire and explosion hazard and fire risk**

### **Article 14. The purpose of the classification of technological media on fire and explosion hazard and fire risk**

Classification technology environments for fire and explosion hazard and fire risk are used to establish secure parameters of the process.

### **Article 15. Indicators of fire and explosion hazard and fire hazard technological environments**

1. Fire and explosion hazard and fire technology environments characterized by indicators of fire and explosion hazard and fire hazard substances circulating in the process, and the process parameters. The list of indicators needed to assess the fire and explosion hazard and fire risk substances are listed in Table 1 of the annex to the present Federal Law.

2. Methods for determination of fire and explosion hazard indicators and fire hazards of substances that make up the technological environments, established regulations for fire safety.

### **Article 16. Classification technology environments for fire and explosion hazard**

1. Technological environment for fire and explosion hazard are divided into the following groups:

- 1) flammable,
- 2) fire and explosion hazard,
- 3) explosive,
- 4) fire-safe.

2. Wednesday is the Fire, if possible combustible medium education, and the emergence of an ignition source of sufficient power to fire.

3. Wednesday relates to fire and explosion hazard, if possible formation of mixtures of oxidant and combustible gases, vapors of flammable liquids, combustible and flammable aerosols dusts, in which the appearance of an ignition source may fulmination and (or) fire.

4. Wednesday applies to explosive, if possible formation of mixtures of air with flammable gases, vapors of flammable liquids, flammable liquids, combustible and flammable aerosols dusts or fibers, and if at a certain concentration of fuel and when the source of the initiation of the explosion (ignition source), it can explode.

5. For fire-resistant environment is a space in which No combustible environment and (or) an

oxidant.

## **Chapter 5. Classification of flammable and hazardous areas**

### **Article 17. The purpose of classification**

Classification of fire or explosion hazard zones used to select the electrical and other equipment, according to their degree of protection provided by their Fire-fighting operation in a specified zone.

### **Article 18. Classification of fire zones**

1. Fire-prone areas are divided into the following classes:

- 1) P-I - zones in areas where flammable liquids are treated with a flash and a 61 degrees Celsius,
- 2) P-II - zones in areas where combustible dusts are allocated or fibers;
- 3) P-IIa - zones in locations where the treated solid combustible substance in an amount that the specific fire load of at least 1 mega joules per square meter,
- 4) P-III - zones located outside of buildings, structures, are traded flammable liquid with a flashpoint of 61 degrees Celsius or more, or any solid fuels.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Methods for determining the classification of indicators fire hazard zones are established by regulations on fire safety.

### **Article 19. Classification of hazardous areas**

1. Depending on the frequency and duration of the presence of an explosive mixture of explosive areas are subdivided into the following classes:

- 1) 0 Grade - areas in which an explosive mixture of gases or vapors in air is present continuously, or at least for one hour,

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 2) 1 - Grade - areas in which at normal operation of the equipment release flammable gases or vapors of flammable liquids that form explosive mixtures with air,

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 3) Grade 2 - zones in which during normal operation of the equipment does not form an explosive mixture of gases or vapors from the air, but can form an explosive mixture of gases or vapors with air only as a result of an accident or equipment damage,

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- 4) 20th grade - areas in which an explosive mixture of combustible dust from the air are lower

explosion limit less than 65 grams per cubic meter and are always present,

5) 21th grade - areas in spaces in which during normal operation of the equipment in the stand-over suspension of combustible dust or fibers that can form explosive mixtures with air at a concentration of less than 65 grams per cubic meter,

6) 22th grade - areas that are located in areas in which during normal operation of the equipment do not form explosive mixtures of combustible dusts or fibers with air at a concentration of less than 65 grams per cubic meter, but can form an explosive mixture of combustible dusts or fibers air only as a result of an accident or equipment damage.

2. Methods for determination of hazardous area classification indicators established by regulations fire safety.

## **Chapter 6. Classification of electrical equipment for fire and explosion hazard and fire risk**

### **Article 20. The purpose of classification**

Classification of electrical equipment for fire and explosion hazard and Fire hazard is used to determine the field for its safe and appropriate use of the marking of electrical equipment, and to determine the requirements of fire safety in the operation of electrical equipment.

### **Article 21. Classification of electrical equipment for fire and explosion hazard and fire risk**

1. Depending on the fire and explosion hazard and fire hazard electrical equipment is divided into the following types:

- 1) electrical equipment without means fire protection,
- 2) electrical fire safety (for fire zones)
- 3) explosion proof electrical equipment (for hazardous area).

2. The degree of fire and explosion hazard and fire risk understood the danger of electrical ignition source within electrical and (or) the risk of contact with a source of ignition of combustible surrounding electrical environment. Electrical equipment without the means to fire protection level of fire protection and explosion protection is not classified.

### **Article 22. Electrical fire safety classification**

1. Electrical equipment for use in fire hazard zones, classified according to the degree of protection against ingress of water and solid foreign objects by the design of the electrical

equipment. Classification of fire safety of electrical equipment shall be in accordance with Tables 4 and 5 annex hereto.

2. Methods for determining the degree of protection of the enclosure of electrical equipment installed fire safety regulations on fire safety.

3. Marking in protection of electrical equipment by using the international symbol of protection (IP) and two digits, the first of which means protection against ingress of solid objects, the second - from water penetration.

### **Article 23. Ex classification Electrical**

1. Explosion-proof electrical equipment is classified in levels of protection, species protection, groups and temperature classes.

2. Explosion-proof electrical equipment by level protection is divided into the following types:

- 1) electrical special explosion-proof (level 0),
- 2) explosion-proof electrical (level 1),
- 3) high reliability against electrical explosion (Level 2).

3. Especially explosive electrics - is explosion-proof electrical with additional means of protection.

4. Explosion-proof electrical equipment provides explosion protection, as in normal operation of the equipment, and if damaged, except for the damage of the explosion protection. Electrical equipment increased safety explosion protection only during normal operation equipment (in the absence of accidents and injuries.)

5. Explosion-proof electrical explosion divided by type of equipment having:

- 1) flameproof enclosure (d);
- 2) filling or venting pressurized shell protective gas (p),
- 3) Intrinsic safety (i);
- 4) powder filling with live parts (q);
- 5) an oil immersion with live parts (of)
- 6) a special type of protection, defined features object (s);
- 7) Any other type of protection (e).

6. Explosion-proof electrical equipment for use in areas of admissibility is divided into equipment:

- 1) with industrial gases and vapors (group II and group IIA, IIB, IIC),
- 2) with methane-MINE (Group I).

7. Depending on the maximum allowable surface temperature of the explosion-proof electrical equipment group II subdivided into temperature classes:

- 1) T1 (450 degrees Celsius),
- 2) T2 (300 degrees Celsius)

- 3) T3 (200 ° C),
  - 4) T4 (135 ° C),
  - 5) T5 (100 degrees Celsius),
  - 6) T6 (85 degrees Celsius).
8. Explosion-proof electrical equipment shall be marking. In the following sequence must specify:
- 1) the sign of the level of explosion protection (2, 1, 0),
  - 2) the marks relating to explosion-proof electrical equipment(E),
  - 3) the sign type of protection (d, p, i, q, of, s, e);
  - 4) sign the group or subgroup of electrical (I, II, IIA, IIB, IIC),
  - 5), the sign of the temperature class of electrical (T1, T2, T3, T4, T5, T6).
9. Test methods for explosion-proof electrical belonging to the appropriate level, type, group (group), temperature class set regulations on fire safety.

## **Chapter 7. The classification of outdoor facilities of fire danger**

### **Article 24. The purpose of the classification of outdoor facilities for fire danger**

1. The classification of outdoor facilities for fire danger used to establish fire safety requirements to prevent the risk of fire and provide fire protection of people and property in case of fire on the outside installations.
2. The classification of outdoor facilities for fire danger based on the determination that they belong to that category.
3. Category of outdoor facilities for the fire hazard shall be indicated in the project documentation for capital construction and renovation, and the designation of categories should be indicated on the unit.

### **Article 25. Definition of categories of outdoor facilities for fire danger**

1. Of fire danger outdoor settings are divided into the following categories:
  - 1) high explosive (AN),
  - 2) explosive (BN),
  - 3) fire risk (HV)
  - 4) a moderate fire risk (GN),
  - 5), low flammability (NAM).
2. Category of outdoor facilities for fire danger determined based on the properties of fire are in units of flammable substances and materials, their quantity and characteristics of processes.
3. This applies to the category AH, if it contains (Stored, processed, transported) flammable gases,

flammable liquid with a flash point of more than 28 degrees Celsius, the material and (or) materials that can burn when in contact with water, oxygen and (or) to each other (Provided that the value of fire risk with the possible burning of the substances with the formation of pressure waves exceeds one million per year at a distance of 30 meters from the outdoor).

4. This applies to the category of BN if it present, stored, processed or transported combustible dust (or) fibers, flammable liquid with a flash point above 28 ° C, flammable liquids (Provided that the value of fire risk with the possible burning of dust and (or) vapor-air mixtures to form the pressure wave is more than one million a year at a distance of 30 meters from the outdoor).

5. This applies to the category HV, if it contains(Stored, processed, transported) fuels, and (or) resistant liquid, solid fuels and (or) slow-burning material and (or) materials (including dust and (or) fiber) matter and (or) materials capable of interacting with water, oxygen and (or) with one another to burn, and if not implemented criteria to include the installation of the category of AN or BN (provided that the value of fire risk with the possible combustion of these substances, and (or) materials exceeds one million per year at a distance of 30 meters from the outdoor).

6. This applies to the category GN, if it contains (stored, processed, transported) noncombustible material and(Or) materials in the hot, hot, and (or) a molten state, the processing of which is accompanied by radiant heat, sparks, and (or) of the flame, as well as flammable gases, liquids, and (or) the solids that are burned or utilized as fuel.

7. This applies to the category of NAM, if it contains (stored, processed, transported) mainly combustible media and (or) materials in the cold and if the above criteria, it is not classified as AN, BN, BH or GBV.

8. Definition of categories of outdoor facilities for fire risk is performed by sequential testing of belonging to the category of the most dangerous (AN) to the least dangerous (NAM).

9. Methods for determining the categories of classification features outdoor facilities for fire danger are set regulations on fire safety.

## **Chapter 8. Classification of buildings, structures and premises for fire and explosion hazards**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 26. The purpose of the classification of buildings, structures and premises for fire and explosion hazards**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

Classification of buildings, structures and premises for fire and explosion hazards and used for the fire safety requirements to prevent the possibility of fire and provide fire protect people and property in

case of fire in buildings, structures and premises. (Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Article 27. Definition of the category of buildings, structures and premises for fire and explosion hazards**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. The fire and explosion hazard areas and warehouse purposes, regardless of their functionality into the following categories:

- 1) high explosive (A);
- 2) explosive (B),
- 3) fire risk (B1 - B4),
- 4) a moderate fire risk (D)
- 5) reduced fire risk (D).

2. Buildings, structures and premises for other purposes categorization cannot be.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

3. Categories of premises for fire and explosion hazards are determined based on the premises of the type of flammable substances and materials, their quantity and fire properties, and based on the space-planning decisions and premises characteristics do in them processes.

4. Definition of the categories of premises should be carried out by sequential testing facilities belonging to the categories of the most dangerous (A) to the least dangerous (D).

5. The category A are areas in which there are (treated) flammable gases, flammable liquid with a flash point of more than 28 degrees Celsius in a quantity that can form explosive mixtures steam and gas, in the ignition which develops the design pressure of explosion in the room of more than 5 kPa, and (or) substances and materials that can explode and burn at contact with water, oxygen, or with each other, in an amount such that the design pressure of explosion in the room more than 5 kPa.

6. The category B includes areas in which there are (Treated) combustible dust or fibers, flammable liquid with a flash point above 28 ° C, flammable liquids in such a quantity that can form explosive dust-air or vapor-air mixture, which when ignited developing the design pressure of explosion in the room of more than 5 kPa.

7. By category B1 - B4 are areas in which there are (treated) flammable and nonflammable liquids, solids flammable and nonflammable materials and supplies (including dust and fibers), substances and materials capable of contact with water, oxygen, air, or with each other only to burn, provided that the premises in which they are located (address), not category A or B.

8. The assignment of the room to the category B1, B2, B3 or B4 is dependent on the amount and method of placement of fire load in this area and space planning characteristics, as well as the fire properties of materials that make up the fire load.

9. The category D is the areas in which there are (treated) non-combustible substances and materials in the hot, hot or molten state, the processing of which is accompanied by radiant heat, sparks and flame, and (or) fuel gases, liquids and solids that are burned or recycled as fuel.

10. The category D is the areas in which there are (Treated) combustible media and materials in a cold state.

11. Categories of buildings and structures for fire and explosion hazards are determined based on the proportion and summed area of the premises of a hazard category in the building, construction.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

12. The building is classified as A, if it summed floor space of category A is greater than 5 percent of the area of all space and 200 square meters.

13. The building is not classified as A, if we sum up floor space of category A in the building does not exceed 25 percent of the summed area of all buildings within the container (but not more than 1000 square meters), and these rooms are equipped with facilities automatic fire.

14. The building belongs to the category B, if all the following conditions: the building is not classified as A and summed area of the premises in categories A and B is greater than 5percent of the summed area of all rooms or 200 square meters.

15. The building is not classified as B, if summed area of the premises in categories A and B in the building does not exceed 25percent of the summed area of all buildings within the container (but not more than 1000 square meters) and these rooms are equipped with automatic fire-fighting facilities.

16. The building belongs to the category B, if all the following conditions: the building is not classified as A or B and summed area of the premises in categories A, B, B1, B2 and B3 is greater than 5 percent (10 percent if there are no spaces in the building of categories A and B) summed area of all premises.

17. The building does not belong to category B if summed area of the premises in categories A, B, B1, B2 and B3 in the building does not exceed 25 percent of the summed area of all buildings within the container (but no more than 3500 square meters) and the premises are equipped with installation of automatic fire.

18. The building belongs to the category of T if all the following conditions: the building is not classified as A, B or C and summed area of the premises in categories A, B, B1, B2, B3and r is greater than 5 percent of summed area of all premises.

19. The building does not belong to the category of T, if we sum up floor space in categories A, B, B1, B2, B3 and C in the building does not exceed 25 percent of the summed area of all within the container premises (but not more than 5,000 square meters) and the spaces of category A, B, B1, B2 and B3 are equipped with automatic fire extinguishing installations.

20. The building belongs to the category A if it does not apply to Category A, B, C or D.

21. Methods for determining the classification criteria for inclusion of the facilities and warehouse

assignment to the categories of fire and explosion hazards are set regulations on fire safety.

22. Categories of buildings, structures and premises and warehouse destination for fire and explosion hazards are specified in the design documentation for capital construction and renovation.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Chapter 9. Fire-technical classification of buildings and fire compartments**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 28. The purpose of classification**

1. Fire-technical classification of buildings and fire compartments is used to determine the fire safety systems for fire safety of buildings, structures, depending on their functional purpose and fire hazard.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Fire resistance of buildings, structures and fire compartments, classes of functional and structural fire hazards specified in the design documents for capital construction and renovation.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 29. Fire-technical classification of buildings and fire compartments**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

Classification of buildings and fire compartments shall be based on the following criteria:

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 1) the degree of fire resistance;
- 2) the class structural fire hazard;
- 3) the class of functional fire hazard.

### **Article 30. Classification of buildings and fire compartments on the fire resistance**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Buildings, structures and the degree of fire compartments fire fall on buildings, structures, buildings and fire compartments I, II, III, IV and V degrees of fire resistance.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. The procedure for determining the fire resistance of buildings and fire compartments is set by Article 87hereof.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Article 31. Classification of buildings and fire compartments on structural fire danger**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Building, construction and fire compartments on structural fire hazards are divided into classes C0, C1, C2 and C3.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. The procedure for determining structural fire danger class of buildings and fire compartments established by Article 87 of this Federal Law.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Article 32. Classification of buildings and fire compartments, functional fire hazard**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Building (construction, fire compartments and parts of buildings - rooms or groups of rooms are functionally related to each other) in the class functional fire hazard depending on their purpose, and the age, physical condition and the number of people in the building, construction possibilities of staying in the dream state are divided into:

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1 ) F1 - buildings designed for permanent residence and temporary stay of people, including:

a) F1.1 - building preschool educational institutions, specialized nursing homes (nekvartirnye), hospitals, dormitories educational residential care and child care;

b) F1.2 - hotels, hostels, dormitories sanatoria and rest houses of the general type, campgrounds, motels, boarding houses,

a) F1.3 - apartment buildings,

d) F1.4 - Single-family homes, including blocking;

2) F2 - spectacular buildings and cultural and educational institutions, including:

a) F2.1 - theaters, cinemas, concert halls, circuses, sports facilities, with stands, libraries and other institutions with an estimated number of seats for visitors closed premises;

b) F2.2 - museums, exhibitions, dance halls and other similar institutions in enclosed spaces;

c) F2.3 - building institutions in sub-paragraph "a" above, in the open air;

d) F2.4 - building institutions in sub-paragraph "b" above, in the open air,

3) F3 - building public service organizations, including:

a) F3.1 - the building trade organizations;

b) F3.2 - the building of public nutrition

- in) F3.3 - stations,
- d) F3.4 - clinics and dispensaries,
- e) F3.5 - rooms for visitors to the civil and public service with an unplanned number of seats for visitors,
- e) F3.6 - sports and recreation centers and sports training facilities to the rooms without the stands for spectators, utility rooms, baths,
- 4) F4 - building research and educational institutions, scientific and design organizations, government agencies, including:
  - a) F4.1 - buildings of educational institutions, educational institutions, additional education, educational institutions of primary vocational and secondary vocational education
  - b) F4.2 - buildings of educational institutions of higher education and secondary vocational education (training) professionals;
  - c) F4.3 - building government institutions, design organizations, information, and editorial and publishing organizations, academic institutions, banks, offices, offices,
  - d) F4.4 - building fire stations;
- 5) F5 - the building of industrial or warehouse use, including:
  - a) F5.1-industrial buildings, industrial and laboratory facilities, workshops,  
(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )
  - b) F5. 2 - warehouse buildings, parking facilities for vehicles without maintenance, book storage, archives, warehouses,  
(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )
  - c) F5.3 - buildings for agricultural purposes.
- 2. Rules for inclusion of buildings and fire compartments to classes on structural fire hazard defined in the regulations on fire safety.  
(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 33. Classification of building fire stations**

1. Building fire stations, depending on the destination, number of vehicles of the premises and their areas are divided into the following types:
  - 1) I - fire stations at 6, 8, 10 and 12 cars to protect towns,
  - 2) II - fire stations 2, 4 and 6 vehicles to protect urban settlements;
  - 3) III - fire stations at 6, 8, 10 and 12 cars to protect organizations
  - 4) IV - fire stations 2, 4 and 6 cars for security organizations,
  - 5) V - fire stations 1, 2, 3 and 4 cars for protection rural settlements.
2. Building fire stations types I and III are designed in case of placing them in government fire

departments stationed in the locality or organization, and (or) the duty and dispatch service of fire protection.

## **Chapter 10. Fire-technical classification of structures and fire barriers**

### **Article 34. The purpose of classification**

1. Building structures are classified for fire resistance to establish the possibility of their use in buildings, structures and fire compartments certain degree of fire or to determine the fire resistance of buildings and fire compartments.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Building structures are classified by fire risk to determine the degree of building structures in the development of a fire and its ability to form a fire hazard.

3. Fire barriers are classified according to the method prevent the spread of fire hazards and fire protection for the selection of structures and fill openings in fire barriers with the required fire resistance and fire rating class.

### **Article 35. Classification of building structures for fire resistance**

1. Building construction of buildings and structures, depending on their ability to resist the effects of fire and its hazards in terms of standard tests are divided into building structures with the following fire-resistance rating:

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 1) non-normed,
- 2) at least 15 minutes,
- 3) at least 30 minutes, and
- 4) at least 45 minutes;
- 5) at least 60 minutes;
- 6) at least 90 minutes,
- 7) is not less than 120 minutes,
- 8) is not less than 150 minutes,
- 9) is not less than 180 minutes,
- 10) is not less than 240 minutes,
- 11) is not less than 360 minutes.

2. Fire-resistance of building structures defined in standard tests. Offensive fire limits of bearing and enclosing structures in standardized tests or by calculation is set by the time to reach one or sequentially more of the following limiting conditions:

- 1) loss of load (R);
- 2) loss of integrity (E), and
- 3) loss of heat insulating capacity due to increased temperature on the surface of the unheated structure to limit values (I) or the emission limit values of the heat flux at a distance from the normal unheated surface of the structure (W).
3. Fire resistance to fill openings in fire barriers occurs when loss of integrity (E), heat insulating capacity (I), reaching maximum values of the heat flux (W) and (or) gas impermeability (S).
4. Methods for determining the fire resistance of building limits structures and characteristics of limit states set regulations on fire safety.
5. Symbols outside fire resistance of building structures contain marks and limit state group.

### **Article 36. Classification of building structures in fire hazard**

1. Building construction for fire hazards are divided into the following classes:
  - 1) inflammable (R0);
  - 2) hardly flammable (K1),
  - 3) moderately flammable (K2)
  - 4) flammable (R3).
2. Fire Prevention Class of building structures is determined in accordance with Table 6 of the annex to the present Federal law.
3. The numerical values of the criteria for identification of building structures to a class fire rating determined in accordance with procedures established by the regulations on fire safety.

### **Article 37. Classification of fire barriers**

1. Fire barriers, depending on the method of preventing the spread of fire hazards are divided into the following types:
  - 1) fire walls;
  - 2) firewalls,
  - 3) fire floors;
  - 4) fire breaks;
  - 5) fire curtains, blinds and screens;
  - 6) fire water curtains,
  - 7) fire mineralized strips.
2. Fire walls, partitions and floors, fill openings in fire barriers (fire doors, gates, hatches, valves, windows, blinds, curtains), depending on the limits of the envelope of fire, as well as locks, provided in

the openings of fire barriers, depending on the types of items locks, are divided into the following types:

- 1) wall 1 or Type 2,
- 2) partitions 1 or type 2;
- 3) floors 1, 2, 3 or Type 4,
- 4) doors, gates, hatches, valves, screens, 1, 2 or type 3,  
curtains
- 5) box 1, 2 or type 3,
- 6) curtains of Type 1;
- 7) air locks 1 or Type 2.

3. The assignment of fire barriers to a particular type, depending on the limits of fire resistance of elements of fire types of obstacles and fill openings in them is carried out in accordance with Article 88 of this Federal Law.

## **Chapter 11. Fire-technical classification of stairs and stairwells**

### **Article 38. The purpose of classification**

Stairs and staircases are classified in order to determine their requirements for space-planning and design decisions, and to establish requirements for their use in escape routes people.

### **Article 39. Classification of stairs**

1. Ladders are designed to evacuate people from buildings in case of fire, are divided into the following types:

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 1) The internal stairs, placed in the stairwells,
- 2) internal open staircases;
- 3) external open staircase.

2. Fire escapes are designed for fire-fighting and rescue operations are divided into the following types:

- 1) P1 - vertical ladder;
- 2) P2 - stairway slope no more than 6:1.

### **Article 40. Classification stairwells**

1. Stairwells, depending on their degree of protection from smoke in case of fire into the following

types:

1) conventional staircases;

2) smoke controlled stairwells.

2. Ordinary staircases, depending on how light are divided into the following types:

1) L1-staircases with natural light through the glass or open holes in the exterior walls on each floor;

2) A2 - staircases with natural light through the glass or open holes in the cover.

3. Smoke controlled stairwells, depending on the method of protection from smoke in case of fire

into the following types:

1) H1 - stair to the entrance to the stairwell with a floor through smoke prevented outer air zone to open transition,

2) H2 - staircases with air overpressure on stairs cell during a fire;

3) H3 - staircases to the entrance to them on each floor through locks, which permanently or during the fire provided air backup.

## **Chapter 12. Classification of fire equipment**

### **Article 41. The purpose of classification**

Classification of fire equipment is used to define its purpose, scope, and to establish the requirements of fire safety in the operation of fire fighting equipment.

### **Article 42. Classification of fire equipment**

Fire trucks, depending on the purpose and scope is divided into the following types:

1) the primary means of fire fighting

2) mobile fire-fighting equipment,

3) fire-fighting;

4) The means of fire automatics;

5) fire equipment;

6) personal protection and rescue in case of fire,

7) Fire Tool (mechanized and non-mechanized);

8) Fire Alarm, communication and notification.

### **Article 43. Classification and Application primary fire extinguishing**

The primary extinguishing designed for use by workers organizations, personnel Fire departments and other entities in order to fight fires and are divided into the following types:

- 1) portable and mobile fire extinguishers,
- 2) fire hydrants and means for their use;
- 3) fire-fighting equipment;
- 4) insulation blankets for the source of fire.

#### **Article 44. Classification of mobile fire**

1. To a mobile fire fighting facilities include transport or transported fire vehicles intended for use of personnel of the fire brigade to extinguish fires.

2. Mobile fire-fighting equipment are divided into the following types:

- 1) fire trucks (basic and specialized),
- 2) fire, helicopters;
- 3) Train fire,
- 4) fire-fighting vessels,
- 5) fire pumps,
- 6) adapted technical equipment (tractors, trailers and tractors).

#### **Article 45. Classification of fire-extinguishing**

1. Fire-extinguishing system - a set of stationary technical means of extinguishing by fire extinguisher. Fire-extinguishing system shall provide containment or fire fighting. Extinguishing Systems for Constructive unit divided by the aggregate, modular and microencapsulated, the degree of automation - the automatic, automated, self-contained and hand, apparently a fire extinguisher - the liquid (water, aqueous solutions, and other fire extinguishing liquid), foam, gas, powder, aerosol and combined, by the method of fighting - on volume, surface, locally-volume and locally shallow.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Type of fire suppression, the method and the type of fire extinguishing agent is determined by the organization, the designer. In this case, fire fighting must provide:

- 1) the implementation of effective technologies extinguishing optimal lag is minimal adverse effects on the protected equipment,
- 2) operation for a time not exceeding duration of the initial stage of fire development (critical time for the free development of fire),
- 3) the required intensity of irrigation or the specific consumption of agent;
- 4) fire fighting for elimination or containment for the time necessary to give effect to the operational capabilities;

5) the required reliability.

#### **Article 46. Classification of fire automatics**

Means fire automation designed to automatically fire detection, warning people about it and control the evacuation, and the inclusion of automatic fire extinguishing systems, smoke actuators protection, control engineering and technical equipment of buildings and facilities. Means fire automation divided into:

- 1) fire alarm,
- 2) the instruments receiving-control fire,
- 3) fire-control equipment,
- 4) the technical means warning and evacuation fire,
- 5) of the notices of the fire,
- 6) other instruments and equipment for the construction of fire automatics.

#### **Article 47. Classification of individual protection and rescue in case of fire**

1. Personal protection in case of fire are designed to protect the personnel of the fire, and people from the effects of fire hazards. Funds rescue in case of fire are designed to self-rescue personnel of the fire department and rescue people from a burning building, building.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Personal protection in case of fire are divided into:
  - 1) personal respiratory protection and vision,
  - 2) Protective equipment.
3. Means of saving people from the height of the fire are divided into:
  - 1) personal,
  - 2) collective funds.

### **Chapter 13. System to prevent fires**

#### **Article 48. The purpose of creation of systems to prevent fires**

1. The purpose of the system of fire prevention is to eliminate the conditions of fire.
2. Elimination of conditions of fire reached except under the conditions form a combustible environment and (or) except under the conditions of education in a combustible environment (or make it) sources of ignition.
3. Structure and functional characteristics of the systems fire hazards in the facility protection

established by this Federal Law. The rules and methods (tests and measurements) characteristics of systems to prevent fires are determined in accordance with the regulations on fire safety.

#### **Article 49. Ways to avoid the formation conditions of the combustible environment**

Exception conditions form a combustible environment must be provided by one or more of the following ways:

- 1) use of non-combustible substances and materials;
- 2) the restriction of mass and (or) the volume of combustible substances and materials
- 3) use of the most secure ways to place combustible substances and materials as well as materials, interaction which together results in a combustible medium,
- 4) isolation of the combustible environment from ignition sources (use of isolated compartments, cameras, cabins)
- 5) maintain a safe concentration in the oxidizing environment and (or) of combustible materials;
- 6) reduction of the concentration of oxidizer in a combustible environment in the protected volume,
- 7) maintaining the temperature and pressure of the medium in which the flame spread is excluded;
- 8) the mechanization and automation of production processes, related to the handling of flammable substances;
- 9) setting fire hazard systems in separate rooms or in open areas;
- 10) application of protective devices manufacturing equipment, excluding the output volume of combustible materials in the room, or devices that exclude the formation of a combustible environment indoors,
- 11) removed from the premises, equipment and utilities flammable waste, dust deposits, fluff.

#### **Article 50. Ways to avoid the formation of conditions in a combustible environment (or make it) sources of ignition**

1. Exception conditions of formation in a combustible environment (or make it) sources of ignition shall be achieved by one or more of the following ways:

- 1) use of electrical equipment, the relevant Hazard and (or) hazardous area, category and group explosive mixture;
- 2) application in the construction of high-speed breakers and other electrical equipment, excluding the occurrence of ignition sources,  
(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )
- 3) use of the equipment and how to conduct the process, excluding the formation of static electricity;

- 4) lightning protection of buildings, structures and equipment  
(in the ver. Federal Law [of 10.07.2012 N 117-FZ](#) )
  - 5) maintaining a safe heating temperature, materials and surfaces that come into contact with a combustible medium;
  - 6) the use of methods and devices limit energy spark in a combustible environment to safe values,
  - 7) use non-sparking tools when working with flammable liquids and flammable gases;
  - 8) the elimination of conditions for thermal, chemical, and (or) microbial Auto ignition circulating substances, materials and products;
  - 9) avoiding contact with air pyrophoric substances,
  - 10) use of devices that exclude the possibility flame spread from one volume to the adjacent.
2. Safe values are determined by the ignition source of the process on the basis of fire danger substances circulating in it and materials, as defined in Article 11 of this Federal Law.

## **Chapter 14. Fire protection systems**

### **Article 51. The purpose of creation of fire protection systems**

1. The purpose of the fire protection system is protection of people and property from the effects of fire hazards, and (or) limit its effects.
2. Protecting people and property from the effects of fire hazards, and (or) limit its effects provided lower the dynamics of the growth of fire hazards, evacuation of people and property in a safe area and (or) fire fighting.
3. Fire protection systems must have reliability and resistance to fire hazards in the time required to achieve fire safety.
4. The composition and function of fire protection facilities established regulations on fire safety.

### **Article 52. Ways to protect people and property from the effects of fire hazards**

Protecting people and property from the effects of fire hazards, and (or) limit the impact of their influence provided by one or more of the following:

- 1) use of space planning solutions and means to ensure control the spread of fire beyond the hearth,
- 2) unit of evacuation routes, meeting the requirements of safe evacuation in case of fire,
- 3) unit fire detection systems (systems and fire alarm systems), warning and evacuation in case of fire,
- 4) application of collective protection (including smoke) and personal protection of people from the

effects of fire hazards,

5) use of the main building with a fire resistance of structures and classes of fire risk, the relevant the required degree of fire resistance and structural fire danger class buildings and facilities, as well as the limitation of the fire hazard of the surface layers (finishes, linings and fire protection means) building structures on the escape routes;

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

6) the use of flame retardants (including flame retardants and flame retardant paints) and building materials (cladding) to increase the limits of fire resistance of building structures

7) device accidental discharge of flammable liquids and emergency venting of combustible gases from the apparatus;

8) the process equipment systems for explosion protected,

9) use primary fire extinguishing,

10) application automatic (or) separate extinguishing systems;

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

11) organization of the fire departments.

### **Article 53. Escape routes in case of fire**

1. Every building or structure shall have space planning solutions and designs evacuation routes to ensure safe evacuation in case of fire. If it is impossible to evacuate people safely must be ensured their protection through the use of collective protection.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. To ensure the safe evacuation of people should be:

1) set the required number, size and appropriate design concept of evacuation routes and emergency exits,

2) to ensure a steady flow of people evacuation routes and emergency exits through,

3) to alert and control the movement of people to evacuation routes (including using light pointers, sound and voice alerts).

3. Safe evacuation of buildings in case of fire is provided, if the time interval between the detection of a fire until the process of evacuation to a safe area shall not exceed the time required to evacuate people fire.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

4. Methods for determination of the necessary and the estimated time, and with a clear and timely evacuation of people defined regulations on fire safety.

## **Article 54. Fire detection, warning and evacuation in case of fire**

1. Fire detection systems (installation and fire alarm systems), warning and evacuation in case of fire to provide automatic fire detection in the time necessary for the setting of the fire alarm systems in the organization of security (with a valid fire risk) to evacuate people in a particular subject.

2. Fire alarm system, warning and evacuation in case of fire must be installed at the sites where the impact of fire hazards can cause personal injury and (or) death. The list of objects to be equipping these systems, set regulations on fire safety.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Article 55. System of collective security and personal protection from dangerous people factors of fire**

1. System of collective security and individual protection of people from exposure to fire hazards to ensure the safety of people during the time of exposure they fire hazards.

2. System of collective security people should ensure their safety at all times and of fire fighting or the time required for evacuation to a safe area. Safety of the people in this case should be achieved through space planning and design solutions secure areas in buildings (including through the device smoke stairwells) and also through the use of technology to protect people on the escape routes from the effects of fire hazards (including the means of smoke protection.)

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

3. Personal protection of people (including the protection of their eyes and breathing) can ensure their safety in the time required for evacuation to a safe area, or within the time required to carry out special operations to extinguish the fire. Individual protection means people should apply both to protect evacuees and rescue people, and for the protection of firefighters involved in extinguishing the fire.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Article 56. Smoke protection system**

1. Smoke protection system of the building, facilities should provide protection for people on the escape routes and safe areas from the effects of fire hazards in the time required for evacuation to a safe area, or a total time of development and extinguish fire by removing products of combustion and thermal decomposition and (or) to stop their spread.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Smoke protection system must include one or more of the following methods of protection:

- 1) use of space and layout of buildings and structures to fight the fire Haze,  
(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )
- 2) the use of design solutions buildings and structures to combat the smoke blanketing the fire;  
(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )
- 3) use of fresh air for smoke ventilation pressurize the air in the protected rooms, air locks and stairwells,
- 4) use of mechanical devices and exhaust smoke and natural ventilation to remove products of combustion and thermal decomposition.

### **Article 57. Fire and fire hazard buildings**

(Ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. The buildings and facilities should be applied to the construction of the main building and the fire rating fire: Class meets the required fire resistance of buildings and their structural class of fire hazard.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. The required fire resistance of buildings and their structural class of fire danger are set regulations on fire safety.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 58. Fire and fire hazard of building structures**

1. Fire resistance and fire rating class structures should be provided by their design solutions, application of appropriate building materials, and the use of fire protection.

2. Required fire building structures, selected according to the degree of fire resistance of buildings and structures are shown in Table 21 of the annex to the present Federal Law.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 59. Limit the spread of fire beyond the focal**

Limit the spread of fire beyond the focal point should be provided by one or more of the following:

- 1) This device fire barriers,
- 2) the device fire compartments and sections, as well as restrictions-rise buildings and structures  
(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )
- 3) use of emergency stop devices and switching systems and communications in the fire,

- 4) the use of means to prevent or limit spill and the spreading of liquids in a fire;
- 5) application firewall devices in the equipment;
- 6) the use of fire suppression systems.

### **Article 60. Primary means of fire in buildings and structures**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Buildings and facilities should be provided for the primary means of extinguishing the persons authorized to possess, use or dispose of buildings and structures.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. The range, number and location of the primary fire extinguishers are set depending on the type of combustible material, space and layout of the building, construction, environmental conditions and placement of staff.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 61. Automatic and autonomous fire-fighting**

(In red. Federal Law [of 10.07.2012 N 117-FZ](#) )

Part 1. - No longer in force.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. The use of automatic and (or) separate extinguishing installations shall provide for one or more of the following purposes:

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 1) elimination of the fire in the room (the building) before the critical values of the hazards of fire,
- 2) elimination of the fire in the room (the building) until the limits of fire resistance of building structures;
- 3) liquidation of a fire in the room (the building) before causing maximum damage to the protected property;
- 4) elimination of a fire in the room (the building) until the danger of destruction of processing plants.

3. Type of automatic, and (or) an autonomous fire-fighting, the type of extinguishing agent and the method of its submission to the fire are determined depending on the type of combustible material, space and layout of the building, construction and environmental parameters.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Article 62. Sources of fire water**

1. Buildings and structures, as well as the territory of organizations and communities should have the power fire water supply for fire fighting.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. As a source of fire water can be used natural and artificial reservoirs, as well as internal and external water supply (including drinking, household and drinking, shopping and fire).

3. Necessity construction of artificial ponds, the use of natural water bodies and devices fire line, and their parameters are determined by this Federal law.

## **Article 63. Primary fire safety measures**

Primary fire safety measures include:

1) implementation of the powers of local government to address the organizational, legal, financial, Logistics Fire municipality;

2) the development and implementation of fire safety and municipal facilities municipal property, which should be provided in the plans and programs of development of the area, ensuring the proper state of sources of fire water supply, maintenance in good repair of fire safety of residential and public buildings, municipal property,

3) development and the management of municipal target programs on fire safety,

4) development of a plan to attract men and equipment to extinguish fighting and rescue operations in the territory of the municipality and for monitoring its implementation;

5) The establishment of a special fire safety conditions in the territory of the municipality, as well as additional requirements fire safety at the time of his actions;

6) ensuring free movement of fire equipment to the fire,

7) providing communications and public warning about the fire,

8) organization educating the public fire safety measures and advocacy in the field of fire safety, the promotion of fire technical knowledge

9) social and economic promotion of the participation of individuals and organizations in the voluntary fire service, including participation in fire management.

## **Article 64. Requirements for fire safety declaration**

1. Declaration of fire safety shall be made in respect of protected objects (buildings, including production facilities), for which the Russian Federation legislation on urban development provides an examination of project documentation (except for buildings functional fire hazard classes F1.3, F1.4)

and in respect of buildings (of the building) class functional fire hazard F1.1 and provides for:

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#))

1) fire risk (if we calculate risk);

2) assessment of possible damage to third party property by fire (can be made under the voluntary insurance of liability for damage to third parties from the effects of fire).

2. In drawing up the declaration of fire safety in relation to objects of protection, which set out the requirements of technical regulations adopted in accordance with the Federal [Law](#) "On Technical Regulation", and regulations on fire safety, the declaration indicated only a list of items (parts, items) of these documents, requirements are established for the protection of the corresponding object.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

Part 3. - No longer in force.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

4. The owner of the object of protection, or person in possession of the object of protection of the right of economic management, efficient management, or other legal basis, by federal law or by contract, provide a declaration of fire safety, are responsible for the completeness and accuracy of the information contained therein in accordance with the legislation of the Russian Federation.

( in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

Part 5. - No longer in force.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

6. For objects of protection, commissioned after the date of entry into force of this Federal Law, fire safety declaration shall be submitted within one year from the date of commissioning. Refined or developed new fire safety declaration submitted in case of change of information within them (change of owner or other person holding the object of legal protection ground change functionality or repair, reconstruction or modernization of the object of protection) for one year from the date of change in the information.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

7. Protection for objects that are operated on the coming into force of this Federal Law, the declaration of fire safety is provided not later than one year after its entry into force.

8. Form and registration declaration of fire security approved by the federal executive body authorized to solve problems in the field of fire safety, before the coming into force of this Federal law.

## **SECTION II. FIRE SAFETY REQUIREMENTS FOR THE DESIGN, CONSTRUCTION AND OPERATION OF SETTLEMENTS AND URBAN DISTRICTS**

### **Chapter 15. Fire safety in urban planning**

#### **Article 65. Documentation requirements when planning the settlements and urban districts**

Planning and construction of settlements and urban areas districts should be in accordance with the outline plans and urban districts that take into account the fire safety requirements established by this Federal Law. Description and justification of the provisions of the measures to ensure fire safety in the settlements and urban districts, should be included in the explanatory notes to the materials on the justification of planning projects in the settlements and urban districts.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

#### **Article 66. Placing explosive objects in the settlements and urban districts**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Hazardous production facilities, are produced, used, processed, produced, stored, transported, destroyed, and fire and explosion hazard substances materials for which the required development of a declaration of industrial safety (hereinafter - the explosive objects) must be located outside the settlements and urban districts, and if this is not possible or practical, should be developed measures to protect people, buildings and structures located outside the fire and inflammation of the object from the effects of fire hazards, and (or) the explosion. Other production facilities in areas with buildings and structures in categories A, B and C, the explosion and fire hazard, can be placed both in and outside the villages and urban districts. In this case, the calculated value of the fire risk must not exceed the value of fire risk, the set hereby. When placing explosive objects in the boundaries of settlements and urban districts to be mindful of the impact of fire hazards in the nearby objects protection, climate, geography, topography, the direction of flow of the rivers and the prevailing wind direction. The distance from the boundaries of the land to the production site building class functional hazard F1 - F4, land of preschool educational institutions, educational institutions, health care organizations and recreation facilities should be at least 50 meters.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. LNG facilities should be located downwind of the human settlements. Warehouses of liquefied petroleum gas and flammable liquids should be located outside the residential area of human settlements in the lee by the prevailing wind direction in relation to residential areas. Plots of land for

location of warehouses liquefied petroleum gas and flammable liquids should be located downstream with respect to human points, a marina, river station, hydroelectric plants, shipyards, other organizations, bridges and structures at a distance of at least 300 meters from them, if technical regulations adopted in accordance with the Federal [Law](#) "On technical regulation" does not have large distance from these structures. Indoor storage upstream with respect to these structures at a distance of not less than 3000 meters from them, provided equipment Warehouse alarm and communications, as well as means of containment and extinguishing fires.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

3. Storage facilities of liquefied petroleum gas and flammable liquids should be placed on the land areas with lower levels compared with the marks territories of neighboring localities, organizations and ways of railways of the network. Indoor these warehouses on the land, with higher levels in comparison with marks the territories of neighboring localities, organizations and ways of railways shared network, at a distance of more than 300 meters away. Warehouses, located at a distance of 100 to 300 meters, must be provided to (including the second banking, emergency capacity, diversion canals, ditches) to prevent the spreading of the liquid in the residential areas, organizations, and on the way the railways of the network.

4. Within the areas of residential developments, social and business areas and recreational areas of settlements and urban districts are allowed to post production facilities in areas that do not have buildings in categories A, B and C of the explosion and fire hazard. The distance from the borderland production facility to residential buildings, buildings of preschool educational institutions, educational institutions, health facilities and leisure facilities set in accordance with the requirements of this Federal law.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

5. If you cannot eliminate the impact on people and the residential buildings hazards of fire and explosion on the explosive objects located within a residential area development, should provide power reduction, re-organization or relocation of production or organization outside of residential areas.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

Article 67. - No longer in force.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 68. Fire water supply of settlements and urban districts**

1. In the settlements and urban districts should be external sources of fire water supply.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Sources outdoor fire water supply include:

1) external water mains with fire hydrants;

2) bodies of water used for fire fighting purposes in accordance with the legislation of the Russian Federation.

3) fire tanks.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

3. Settlements and urban districts should be equipped with fire line. In this case, fire water supply be combined with domestic and drinking water supply or production.

4. In villages and urban districts with a population of up to 5000 people, separate buildings functional fire hazard classes F1.1, F1.2, F2, F3, F4 up to 1000cubic meters, located in the settlements and urban counties that do not have the ring of fire fighting water supply, industrial buildings with the production of categories B, C and D to fire and explosion hazard and fire risk with the consumption of water external firefighting 10 liters per second, warehouses forage up to 1,000 cubic meters, fertilizer warehouses up to 5000 cubic meters, radio and television broadcasting stations, houses, buildings, refrigerators and storage of fruits and vegetables are allowed to provide as sources of outdoor fire water, natural or artificial reservoirs.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

5. Allowed not to provide outdoor fire water supply of settlements with a population of up to 50 people, as well as outside the settlements of buildings and structures of functional fire hazard classes F1.2, F1.3, F1.4, F2.3, F2.4, F3 (except F3.4), in which both can be up to 50 people and the amount of which no more than 1,000 cubic meters.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

of Part 6.-18. - Loss of power.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Chapter 16. Requirements for fire protection distances between buildings and structures**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 69. Fireproof distance between buildings, structures and Forestry (forest park)**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Fireproof distance between buildings, structures must ensure non-proliferation of fire to adjacent buildings, structures. Allowed to decrease shown in Tables 12, 15, 17, 18, 19 and 20 of the annex to this Federal Law fire distance from buildings facilities and processing plants adjacent to them objects of protection (except for residential and public buildings, playgrounds and sports fields), using fire barriers under Article 37 of this Federal Law. In this case, the calculated value of the fire risk must not

exceed the value of fire risk, the provision in Article 93 of this Federal Law.

2. Fireproof distances should ensure non-proliferation of fire:

1) of forest plantations in forest areas (woodlands) to buildings and structures located:

A) outside the forest areas (parks);

b) the territories of forest areas (parks),

2) from forest plantations outside forest areas (parks) to buildings and structures.

3. Fireproof distance from the critical to the national security of the Russian Federation to the boundaries of objects in forest plantations (forest parks) should be at least 100 meters, unless otherwise established by the legislation of the Russian Federation.

### **Article 70. Fireproof distance from buildings warehouses of oil and petroleum products to neighboring these objects to be protected**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Fireproof distance from buildings and structures categories A, B and C, the explosion and fire hazard, located at the warehouse of oil and petroleum products, to their neighboring objects of protection should be in accordance with Table 12 of the Annex to the present Federal Law.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Distances specified in Table 12 of the Annex to this Federal Law in brackets should be taken to warehouses II category with a total capacity of more than 50 000 cubic meters. Distances specified in Table 12 of the Annex to this Federal Law shall be determined:

1) between buildings and structures - as the clear distance between the outside walls or buildings and structures;

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2) of the handling facilities - from the axis of the railway from LOADING BAY,

3) on the grounds (open and under the eaves) handling facilities for road tankers, pumps, containers - from the boundaries of the sites,

4) on the technological platforms and pipelines - from extreme pipeline;

5) from flares - from the trunk flare.

3. Fireproof distance from buildings warehouses of oil and petroleum products to the open areas of occurrence Peat be reduced by half of the distance specified in Table 12 of the Annex to this federal law, subject to backfill the open bedding peat layer of soil with a minimum thickness of 0.5 meters within half the distance from buildings, structures and buildings warehouses of oil and petroleum products.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

4. Distance from warehouses for storage of oil and oil products to the borders of forest stands of

mixed species (coniferous and deciduous) forest areas (parks) may be reduced by half. In this case, along the borders of forestry plantations (parks) with warehouses of oil and oil products shall be provided with a minimum width of 5 meters of ground cover materials, not the spread of fire on its surface, or strip of plowed land.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

5. Any type of oil storage tanks and oil at sites with higher marks than the marks territories of neighboring localities, organizations and ways of railways public network, are located at a distance of 200 meters from the tank farm, as well as the placement of oil depots and oil off the coast of the rivers within 200 meters or less from the water (at the maximum) should include additional measures that exclude the possibility of an accident tanks oil spill in the residential points, organizations towards a common rail network or the pond. The warehouse of oil and petroleum products must be protected by a wall of blowing non-combustible materials with a minimum height of 2 meters.

6. Fireproof distance from residential buildings and public buildings to warehouses of oil and oil products with a capacity of 2000 cubic meters, are in boilers to diesel power plants and other power facilities serving the residential and public buildings and structures shall be not less than the distances given in Table 13 of the annex to the present Federal Law.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

7. Categories warehouses of oil and oil products are determined according to Table 14 of the Annex to the present Federal Law.

### **Article 71. Fireproof distance from buildings and structures adjacent to the gas station with protected objects**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. When placing the filling stations in the residential areas Fire distances should be determined from the walls of the tanks (vessels) for fuel and emergency reservoirs, ground equipment, which draws fuel and(Or) his pair of respiratory reinforcement of underground storage tanks, and emergency storage tank corps fuel dispenser and the dispenser of liquefied petroleum gas or compressed natural gas, from the borders sites for the tank and technological wells, from the walls of the process equipment of treatment facilities, from the border areas for the parking of vehicles and on the exterior walls and the buildings and structures of petrol stations equipment which contains the fuel or its vapors:

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 1) to the land boundaries of pre-school educational institutions, educational institutions, comprehensive residential care, hospitals stationary type, single-family residential buildings;
- 2) to windows or doors (for residential and public buildings).

2. Fireproof distance from gas stations motor fuel to neighboring facilities must meet the requirements specified in Table 15 of the annex to the present Federal Law. The total capacity of above-ground storage tanks of petrol stations to be placed in the residential items should not exceed 40 cubic meters.

3. The distance from the gas station to the boundaries of forest stands of mixed species (coniferous and deciduous) forest areas (parks) may be reduced by half. In this case, along the borders of forestry plantations (parks) from petrol stations should be provided with a minimum width of 5 meters of ground cover materials, not the spread of fire on its surface, or strip of plowed land.

(in ver. Federal Law [of 10.07.2012 N 117 - FL](#) )

4. When placing the gas station near the planting of crops, which may spread the fire, along the borders of neighboring plantations filling stations should provide ground cover, made of materials that do not propagate a flame on its surface, or plowed strip of land with a minimum width of 5 meters.

5. Fireproof distance from gas stations with underground storage tanks of liquid fuel to the borders Land of preschool educational institutions, educational institutions, educational institutions, residential care, hospitals stationary type must be at least 50 meters.

Article 72. - No longer in force.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 73. Fireproof distance from the tanks of liquefied petroleum gas to buildings and structures**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Fireproof distance from the tanks of liquefied hydrocarbon gases to be placed in a warehouse with a total capacity of up to 10,000 cubic meters of storage under pressure or capacity of 40 000 cubic meters of storage isothermal method to other objects as members of the organization, and is located outside the territory of the organization are given in Table 17 of the annex hereto.

2. Fire-distance from a free-standing LOADING BAY to adjacent buildings, residential houses and public buildings are taken as the distance from the tanks of liquefied petroleum gas and flammable liquids under pressure.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

3. Fireproof distance from the tanks of liquefied petroleum gas to be placed in a warehouse, with a total capacity of 10 000 to 20 000 cubic meters of storage under pressure or capacity from 40 000 to 60 000 cubic meters Storage isothermal method in aboveground tanks or capacity from 40 000 to 100 000 cubic meters of storage isothermal method in underground tanks and other objects the available

both in the organization and outside its territory, are given in Table 18 of the annex to the present Federal Law.

**Article 74. Fireproof distance from gas, oil, oil products, condensate to nearby objects to be protected**

1. Fireproof distance from the axis of underground and surface (in the mound) backbone and field and local distribution pipelines, oil pipelines, and condensate pipelines to settlements, individual industrial and agricultural organizations, buildings and structures, as well as compressor stations, gas distribution stations, pump stations to settlements, industrial and agricultural organizations, buildings and structures shall comply with the minimum distances established by technical regulations adopted in accordance with the Federal [Law](#) "On Technical Regulation", for these objects, depending on the operating pressure, the diameter, the degree liability or, in respect of liquefied petroleum gas pipelines as the terrain, the type and properties of the pumped liquefied hydrocarbon gases.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Fireproof distance from reservoir units of liquefied petroleum gas intended for hydrocarbon gas consumers who use gas as fuel tank apart from the extreme to the buildings, structures and communications are given in Tables 19 and 20 of the annex to the present Federal Law.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

3. When installing 2 tanks of liquefied petroleum gas unit with a capacity of 50 cubic meters of fire distance to buildings (residential, public, industrial) non-gas filling stations are allowed to reduce the overhead tank and 100 meters for underground - up to 50 meters.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

4. Fireproof distance from aboveground tanks to places where both can be more than 800 people (stadiums, markets, parks, residential buildings), as well as to the boundaries of land pre-school educational agencies, educational institutions and hospitals fixed type should be doubled compared with the distances specified in Table 20 of the annex to the present Federal law, regardless of the number of seats.

Article 75. - No longer in force.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Chapter 17. General requirements for fire safety for settlements and urban districts to place fire units**

### **Article 76. Fire safety requirements for the placement of fire protection units in the settlements and urban districts**

1. Location of fire protection units in the settlements and urban districts is determined based on the condition that the time of arrival of the first units to place a call in urban areas and urban districts should not exceed 10 minutes, and in rural areas - 20 minutes.

2. Fire Departments settlements should be located in buildings of fire stations.

3. The procedure and method of determining the locations of the Fire departments in the settlements and urban districts are established regulations on fire safety.

### **Article 77. Fire safety requirements for fire station**

1. Fire stations should be located on land with visits to the main street or road wide significance. Land area, depending on the type of fire department determined the terms of reference for the design.

2. Distance from lot of fire station to the public and residential buildings should be at least 15 meters, and the land boundaries of pre-school educational institutions, educational institutions and hospitals fixed type - at least 30 meters.

3. Fire station is necessary to have in the area with a space from the red line out to the front-engine vehicles by at least 15 meters, for fire stations II, IV and V types specified distance may be reduced to 10 meters.

4. The buildings and structures to be placed in the fire department, the area of buildings and structures are determined by the terms of reference for the design.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

5. The territory of the fire department must have two entry (exit). The width of the gate at the entrance (exit) must be at least 4.5 meters.

6. Roads and squares in the fire department should have a solid surface.

7. Roadway and the sidewalk in front of an exit site fire station should be equipped with traffic lights, and (or) light indicator with acoustic signals help stop the movement of vehicles and pedestrians during the fire trucks out of the garage for alarm. Switching on and off traffic lights can also be controlled remotely from the point of contact of fire protection.

### **SECTION III. Fire safety requirements for design, construction and operation of buildings**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

#### **Chapter 18. General requirements for fire safety in the design, construction and operation of buildings**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

##### **Article 78. Requirements for design documentation on objects construction**

1. Project documentation for building, construction, building construction, engineering equipment and construction materials must contain fire-technical characteristics, contemplated hereby.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. For buildings that do not have fire safety regulations, based on the requirements of this Federal Law shall be developed special specifications reflecting the specific support of their fire safety and containing a set of necessary engineering, technical and organizational measures to ensure fire safety.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

##### **Article 79. The standard value of fire risk for buildings**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Individual fire risk in buildings and structures shall not exceed the value of one million per year in placing the individual in the most remote from the exit of the building and construction point.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. The risk of death from exposure to fire hazards should be determined taking into account the functioning of systems for fire safety of buildings and structures.

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

##### **Article 80. Fire safety requirements for the design, renovation and change of functional purpose buildings**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Design, space-planning and engineering solutions for buildings and structures must provide in case of fire

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 1) evacuation to a safe area to harm their life and health due to exposure fire hazards;
- 2) the ability of the measures to save lives,
- 3) the ability to access the personnel of the fire service and delivery of fire in any room of buildings and constructions

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 4) the possibility for fire extinguishers in the fire,
- 5) non-fire to neighboring buildings.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. The buildings and structures spaces of category A and B, the explosion and fire hazard shall be placed at exterior walls, and in multi-story buildings, structures and buildings - on the upper floors, except as provided in regulations for these facilities.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

3. If you change the functionality of buildings or individual rooms in them, and when the space planning and design solutions should be ensured the implementation of fire safety requirements established in accordance with this Federal Law in relation to the appointment of the new buildings, structures or premises.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

## **Chapter 19. Requirements for the composition and functional characteristics of systems for fire safety of buildings**

(In ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

### **Article 81. Requirements to the characteristics of Functional Systems for Fire Safety of Buildings**

(In ver. Federal Law [of 10/07/2012 N 117-FZ](#) )

1. Functional characteristics of Systems for Fire Safety of Buildings and Structures Shall Comply with the Requirements of this Federal Law.

(in ver. Federal Law [of 10/07/2012 N 117-FZ](#) )

2. The value of Individual Fire Risk in Buildings with a Massive presence of People, Buildings, structures and high-rise buildings, as well as in buildings with being of children and groups with limited mobility should be provided in first Fire Prevention system and a set of Organizational and Technical Measures.

(in ver. Federal Law [of 10/7/2012 N 117-FZ](#) )

3. Fire Protection of Buildings and Structures Shall be Capable of evacuation to a safe area before

the limit values Fire hazards.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

4. Functional characteristics of Systems for Fire Safety of Buildings and Structures, as well as Building Services and Structures defined according to the technical rules for the data to you in accordance with the Federal Law "On Technical Regulation", and (or) the regulations on fire safety.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

## **Article 82. Fire safety requirements for electrical buildings and structures**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Electrical installations of buildings and structures shall comply with the class of fire and explosion hazard zone in which they are installed, as well as the category and the group of the combustible mixture.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Cable lines and wiring of fire protection systems, means of maintenance of activity of divisions of fire protection, fire detection systems, warning and evacuation in case of fire, emergency lighting for escape routes, emergency ventilation and smoke protection, automatic fire, the internal fire line, lifts to transport units fire protection in buildings must continue to operate in case of fire in the time needed to perform their functions and evacuation to a safe area.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. The cables from the transformer substation standby power to the water-distribution devices should be installed in separate fireproof ducts or have fire protection.

4. Power line of buildings and structures shall have protective devices to prevent the occurrence of fire at fault electro receivers. Installation rules and parameters of the circuit breakers should consider fire safety requirements established in accordance with this Federal Law.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

5. Distribution boards must be protected, eliminating the spread of fire through the shield of the weak current in the power compartment and vice versa.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Part 6.- No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

7. Horizontal and vertical channels for laying electric cables and wires in buildings and structures should be protected from the spread of fire. In places where the cable channels, ducts, cables and wires through building structures with controlled fire-resistance rating shall be provided penetrations with fire-resistance rating not less than the fire resistance of these structures.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

8. Cables, laid open, must be self-extinguishing.

9. Luminaires for emergency lighting on escape routes from Independent power source is to be equipped to test their performance in simulating the main power supply. Service life of the independent power supply must provide emergency lighting for escape routes for the estimated time of evacuation to a safe area.

10. Electrical equipment without means not be used in hazardous, explosive and fire-proof rooms of buildings and structures that do not have aimed at eliminating the danger of ignition source in a combustible environment additional measures.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Part 11. - No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

12. Explosion-proof electrical equipment may be used in fire and inflammable premises, and in hazardous areas - subject to the appropriate category and the group of explosive mixtures in the room for explosion protection electrical equipment.

13. Rules for the application of electrical equipment in relation to its explosion and fire risk in buildings for various purposes, as well as indicators fire hazards of electrical equipment and methods of their determination to establish technical regulations for these products, adopted in accordance with the Federal Law "On Technical Regulation", and (or) the regulations on fire safety.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

### **Article 83. Requirements for automatic fire and fire detection systems**

1. Automatic fire-extinguishing and fire alarm systems must be installed in buildings and structures in accordance with the design documentation developed and duly approved. Automatic fire-extinguishing system shall be provided with:

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1) The calculated amount of extinguishing agent sufficient to eliminate a fire in the protected space, a building or structure,

(in ver. Federal law from [10.07. 2012 N 117-FZ](#) )

2) monitoring device performance installation

3) device for fire warning, and the staff on duty, and (or) the fire department of the place its occurrence;

4) device to delay delivery of gas and powder fire extinguishers for the time needed to evacuate people from areas of fire,

5) for manual actuation fire, except for fire extinguishing installations, equipped with sprinklers

(spray) equipped with locks which open from effects of fire hazards.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Way of the extinguishing agent in the fire should not lead to an increase in the area of fire due to the spill, dispersing or spraying flammable materials, and to the separation of flammable and toxic gases.

3. The project documentation for the installation of automatic installations fire must be provided to remove the fire extinguisher on the premises and buildings of its submission.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

4. Automatic fire-extinguishing and fire signaling depending on their design developed with the algorithm should provide automatic fire detection, flow control signals to the technical means fire warning and evacuation, fire extinguishing equipment management, facilities management system smoke protection, engineering and manufacturing equipment.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

5. Automatic fire-extinguishing and fire alarm systems shall provide automatic informing staff on duty on a fault line between separate technical facilities that are part of the settings.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

6. Fire alarms and other fire detection equipment should be located in the protected area so as to ensure timely detection of a fire anywhere in the space.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

7. Fire alarm systems must be capable of providing light and sound signals of fire on the receiving-control device in the duty personnel or special remote pager.

Part 8.- No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

9. Manual call points must be installed on the escape routes in the places available for inclusion in the event fire.

10. Requirements for the design of automatic extinguishing systems and automatic fire alarm system established by this Federal Law and (or) normative documents on fire safety.

#### **Article 84. Fire safety requirements for fire warning and evacuation systems in buildings**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Fire warning, and evacuation management ensure their safe evacuation in case of fire in buildings and structures should be one of the following methods or a combination of the following:

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1) supply of light, sound and (or) voice signals to all areas with permanent or temporary presence of

people;

2) Broadcast specially designed texts on the need of evacuation, evacuation routes, direction, and other activities that keep people safe and prevent Panic in the fire,

3) the placement and maintenance of fire safety signs lighting on escape routes for a standard time,

4) the inclusion of an escape (emergency) lighting;

5) The remote opening doors constipation evacuation routes;

6) providing communications fire post (control room) with zones of fire warning,

7) other ways to ensure the evacuation.

2. The information transmitted by the system warning people about fire and evacuation, shall be the information contained in the developed and placed on each floor of buildings evacuation plans.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. Fire alarms that are installed on the site must provide unambiguous information to people about the fire during the time of evacuation, and the issuance of additional information, the lack of which can lead to reduced level of safety people.

4. At any point of the protected object, where a fire warning, the volume formed by the sirens sound and speech, should be higher than the acceptable level of noise. Voice alarms should be placed so that at any point of the object to be protected, where a fire warning, intelligibility transmit voice data. Strobes to provide a contrast between the perception of information characteristic of the protected object.

5. When separating the buildings and structures on the zone fire warning should be designed specifically prioritize fire warning people in different areas of the building, structure or building.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

6. Dimensions alarm zones, special order of fire warning and time to start fire warning in some areas must be determined from the condition for safe evacuation in case of fire.

7. Systems of fire warning and evacuation must operate for the time required to complete the evacuation of the building structure.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

8. Technical means used to alert people about the fire and evacuation of buildings, structures, the fire must be designed to meet the health and age of the evacuated people.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

9. Beeps fire warning should be different in tone from the audio signal to other applications.

10. Sound and voice devices fire warning should not have any detachable devices, ability to adjust the volume level and must be connected to the mains, as well as to other media. Communication systems fire warning and evacuation may be combined with radio transmission network buildings.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

11. Systems of fire warning and evacuation people need to be equipped with an uninterruptible power supply.

### **Article 85. Requirements for smoke protection of buildings and structures**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Depending on space planning and design solutions supply and exhaust smoke ventilation of buildings and structures shall be carried out with natural or mechanical stirring. Whatever the method of motivation supply and exhaust smoke ventilation shall be automatic and remote manual gear actuators and devices, smoke ventilation. Space-planning solutions for buildings and structures in combination with smoke protection system should ensure the prevention or control the spread of the combustion products of the premises and (or) fire compartment, the sections to ensure the safe evacuation of people.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Part 2.- No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. The use of ventilation products to displace burning outside buildings used without natural or mechanical exhaust smoke ventilation is not allowed. Not allowed device common systems to protect the premises of various classes of functional fire hazard.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Part 4. - 5. - Loss of power.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

6. Types and characteristics of the elements smoke protection of buildings and structures, depending on the purpose of the smoke protection to ensure proper operation of air handling systems, smoke ventilation in the time required for evacuation to a safe area, or in for the duration of the fire.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

7. Automatic drive actuators and devices, air handling systems, smoke ventilation of buildings and structures should be carried out at operation automatic extinguishing systems, and (or) fire alarm.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

8. Remote manual drive actuators and devices, air handling systems, smoke ventilation of buildings and structures should be carried out starting from the elements located at emergency exits and fire stations on the premises or in the premises of dispatch personnel.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

9. When the supply and exhaust systems, smoke ventilation of buildings and structures in the fire should be mandatory shutdown systems and technology general dilution ventilation and air conditioning (except for systems that provide technological security objects).

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

10. Simultaneous operation of automatic aerosol, powder or gas fire suppression systems and smoke ventilation in the room of fire is not allowed.

11. The need to install air handling systems, smoke ventilation, as well as requirements for the composition, its design, fire performance characteristics, usage and activation sequence of elements of supply and exhaust smoke ventilation of buildings and structures are defined according to their functionality and space-planning and constructive solutions.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

### **Article 86. Requirements for internal fire water**

1. Internal fire water supply should provide standard water flow for fire fighting in buildings and structures.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Internal fire water supply system equipped with internal fire cocks in an amount to provide achievement of firefighting.

3. Requirements for internal fire line established regulations on fire safety.

### **Article 87. Requirements for fire resistance and fire buildings**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Fire resistance of buildings and fire compartments should be set depending on their number of floors, the class of functional fire hazard area fire compartment and fire place in them processes.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Fire-resistance of building structures must be consistent with the degree of fire resistance of buildings and fire compartments. Compliance with the fire resistance of buildings and fire compartments and fire resistance are used in building structure is given in Table 21 of the annex to the present Federal Law.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. Limits of fire fill openings (doors, gates, windows and hatches), and lights, including anti-aircraft, and other areas of translucent flooring coatings are not standardized, except fill openings in fire barriers.

4. On smoke protected stairwells type H1 allowed include landings and flights with a fire resistance class R15 fire danger K0.

5. Structural fire danger class of buildings and fire compartments must be installed according to

their number of floors, the class of functional fire hazard, fire compartment area and fire place in their production processes.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

6. Fire Prevention Class of building structures must be consistent with the class of structural fire hazard buildings and fire compartments. The corresponding class of structural fire hazard buildings, buildings and fire compartments fire danger class used in these constructions is given in Table 22 of the Annex to the present Federal Law.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

7. Fire danger fill openings in fencing construction of buildings, structures (doors, gates, windows and hatches) is not specified, except for openings in fire barriers.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

8. Building service class functional fire hazard F1.1 be applied outside of insulation fire rating class K0.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

9. Limits of fire resistance and fire rating class structures should be determined in a standard test method established by regulations fire safety.

10. Limits of fire resistance and fire rating class building structures, similar in form, content, its design building structures, past fire tests may be influenced by the settlement and analytical method specified regulations on fire safety.

11. The buildings and structures I - III degrees of fire resistance, except low-rise residential buildings (up to three floors inclusive), meeting the requirements of the Russian legislation on urban planning, is not allowed to perform the external finish of the outer walls of the materials flammability group G2 - G4 and facade systems not should be self-extinguishing.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

## **Article 88. Requirements to limit the spread of fire in buildings, structures, fire compartments**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Parts of buildings, structures, fire compartments, as well as rooms of various classes of functional fire hazard should be separated by walling off normalized fire resistance and structural classes fire hazard or fire barriers. Requirements for these types of walling and fire barriers are set to reflect the classes of functional fire hazard space, the value of fire load, the fire resistance and structural fire danger class buildings, fire compartment.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Fire-resistance of building structures and the types of acting as fire barriers, the corresponding

types of fill openings and air locks are given in Table 23 of the annex to the present Federal Law.

3. Fire-resistance rating for the respective types of fill openings in fire barriers are given in Table 24 annex hereto.

4. Requirements for elements of air locks of different types are shown in Table 25 of the annex to the present Federal Law.

5. Fire walls must be erected to the full height of the building or structure or to fire floor type 1 and to ensure non-fire in an adjacent fire compartment, including the unilateral collapse of the building structure or structures of the hearth fire.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

6. Places interface fire walls, floors and partitions with other building envelope, structure, fire compartment shall have fire resistance of at least the fire resistance of mating barriers.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

7. The design of interface locations of fire walls to other walls of buildings and facilities must exclude the possibility of fire spreading around these obstacles.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

8. The windows in the fire barriers shall be capable of being opened, and the fire doors and gates must be self-closing devices. Fire doors, gates, curtains, covers and valves which can be operated in the open position shall be equipped with the devices that keep their automatic closing in case of fire.

9. The total area of openings in fire barriers shall not exceed 25 percent of their area.

10. In fire barriers that separate facilities Category A and B from the premises of other categories, corridors, stairwells and elevator lobbies shall be provided with air locks constant air overpressure. Device common air locks for two or more adjacent compartments in categories A and B are not allowed.

11. When the device cannot be air locks in fire barriers that separate spaces of category A and B from the other premises, or fire doors, gates, curtains, covers and valves in fire barriers that separate category in the room from the other rooms should include a set of measures to prevent the spread of fire to adjacent floors in adjacent rooms.

12. In the doorway fire barriers that cannot closing fire doors or gates for communication between adjacent spaces of category C or D and the D facilities should be provided for the unit open vestibules, equipped with automatic fire extinguishing installations, or should be set instead of doors and gates of fire curtains, screens. Protecting designs these vestibules must be fire.

13. Fire doors, gates, hatches and valves must provide fire resistance standard value limits of these structures. Fireproof curtains and screens must be made of materials of combustibility NG.

14. Not allowed to cross the fire wall and overlap type 1 channels, mines and pipelines for transportation of flammable gases, dust-air mixtures, liquids, and other substances and materials. At the intersections of fire barriers channels, mines and pipelines for transportation of substances and

materials other than those mentioned above, except for the channel systems, smoke protection, should include automatic devices to prevent distribution of the products of combustion through the channels, mines and pipelines.

15. Protecting designs elevator shafts outside the stairwell and elevator machine rooms of premises (except those stored on the roof), and the channels and for laying mines communications must comply with the requirements for fire walls of type 1 and overlaps the third type. Fire resistance envelope between the elevator shaft and elevator machine room is not standardized.

16. Door openings in the fence elevator shafts to the outputs of them in hallways and other rooms, except stairways, fire doors should be protected with a fire resistance of at least EI 30 or screens of non-combustible materials with fire resistance of at least EI 45, automatically closing door openings lift shaft in a fire or elevator shafts in buildings and structures shall be separated from corridors, stairs cells and other rooms lobbies or halls with firebreak type 1 and floors third type.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

17. The buildings and structures with height of 28 meters or more elevator shafts that do not have them at the exit of air locks with pressurized air or elevator halls with air overpressure in case of fire, must be equipped with a pressure of air in the elevator shaft.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Part 18.- No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

19. Space-planning solutions and design of stairs and staircases must provide safe evacuation of buildings in case of fire and to prevent the spread of fire between floors.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

20. In the basements of buildings and structures in the elevator entrance be through air locks type-1 positive-pressure air from a fire.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

## **Article 89. Fire safety to evacuation routes, evacuation and emergency exits**

1. Escape routes in buildings and exits of buildings and structures should ensure safe evacuation of people. Calculation of escape routes and exits performed excluding used in them fire extinguishers.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Accommodation facilities with a massive presence of people, including children and groups with limited mobility, and use of flammable building materials in the construction elements of evacuation routes must be determined by technical regulations adopted in accordance with the Federal Law "On technical regulation".

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. Exit-of buildings and structures are outputs, which are:

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1) of the rooms of the first floor outside:

a) directly,

b) through the corridor

) through the lobby (lobby),

d) through a staircase the cell,

d) through the corridor and vestibule (lobby);

e) through the corridor, recreation area and stairwell;

2) from the premises of any floor other than the first:

a) directly to the staircase or ladder type 3,

b) in the corridor leading directly to a staircase or the stairs third type,

c) in the lobby (lobby), with access directly to the staircase or ladder type 3,

r) on the accessible roof or on a specially equipped area of the roof, leading to the stairs third type;

3) in the next room (except the premises of class F5 categories A and B) located on the same floor and secured the exits referred to in paragraphs 1 and 2 of this section. The output of the technical premises without permanent jobs in the area of categories A and Evacuation is considered, if the technical premises located equipment for maintenance of these fire risk.

4. Emergency exits from the basement floors should be provided in such a way as to lead directly to the outside, and were isolated from the common stair buildings, except for the cases established by this Federal Law.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

5. Emergency exits are also considered:

1) Exit the basement through the common stair to the platform with a separate access to the outdoors, separated from the rest of the staircase deaf fire bulkhead type-1, located between the flights of stairs from the basement floor to transitional platform stairs between the first and second floors,

2) exits from the basement floors with rooms category B4, D and E in the room categories B4, D and E and the hall, located on the first floor of a class F5;

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3) output of a foyer, dressing rooms, smoking and sanitary facilities, located in the basement or ground floor of classes F2, F3 and F4, in the lobby of the first floor on two separate staircases the second type;

4) Exit the premises immediately on the ladder of type 2, in the corridor or lobby (foyer, lobby), leading to a staircase, subject to restrictions imposed by regulations on fire safety;

5) revolving door in the gate, designed for entry (exit) of rail and road transport.

Part 6.- No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

7. In the recesses of emergency exits must not be installed, sliding and lifting trapdoor, revolving doors, turnstiles and other items to the free passage of people.

8. Number and width of escape routes from the premises and from the floors of the buildings is defined by the maximum number of evacuated people and through them the maximum allowable distance from the most remote location possible stay of people (jobs) to the nearest emergency exit.

Part 9. - No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

10. The number of emergency exits from the room should be set according to the maximum allowable distance from the most remote point (a job) to the nearest emergency exit.

11. The number of emergency exits of buildings and structures shall be not less than the number of escape routes from any floor of the building, facilities and buildings.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

12. The maximum allowable distance from the outermost point of the room (for buildings and structures of class F5 - from the most remote location) to the nearest emergency exit, measured along the axis of an escape route shall be established depending on the class of functional fire hazard and categories premises and buildings for explosion and fire hazard, the number of evacuees, the geometric parameters of the premises and escape routes, the class of structural fire danger and fire resistance of buildings.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

13. The length of the evacuation route on the stairs of type 2 in the room should be determined equal to its triple height.

14. Evacuation routes except for escape routes underground facilities underground mining, coal mines) must not include elevators, escalators, as well as areas that lead:

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1) through the corridors to the outputs of the lift shafts, lift lobbies in front of lifts and docks, if the building envelope elevator shafts, elevator shafts including the doors, do not meet the requirements for fire barriers;

2) through the stairwells, if space is part of the staircase hall, and through the building, which houses the staircase type 2, which is not evacuation,

3) on the roof of buildings and structures, except for accessible roof or a designated portion of the roof, the roof of the exploited similar in design,

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

4) the ladders of type 2, connecting more than two floors (stories), and the leading of the cellars and basements;

5) ladders and staircases for communication between underground and above-ground floor, except for the cases specified in paragraphs 3-5 of this Article.

15. For the evacuation of all floors of buildings populations with limited mobility may be provide on floors near the elevators, designed for groups of people with limited mobility, and (or) in the stairwells device safe zones, where they can stay until the arrival of rescue units. In this case, the said lifts the same requirements as for the elevators to transport units of fire protection. These lifts can be used to rescue groups with limited mobility in the fire.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

### **Article 90. Support for the operation of fire departments**

1. For buildings to be equipped with:

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1) fire roads and access roads to buildings and facilities for fire-fighting equipment, special or combined with functional driveways and entrances;

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2) Lifting of the personnel of the fire protection and fire fighting equipment on the floor and on the roof of buildings and structures

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3) fire line, including combined with economic or special, suhotrubov and fire tanks (reservoirs), item 4) -5)- Loss of power.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. The buildings and structures up to 10 or more meters from the mark surface passage of fire engines to the eaves of the roof or the top of the outer wall (parapet) must be provided outputs on the roof with a staircase, either directly or through the attic or on the stairs third type, or by an external fire escape.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Part 3.-17. - Loss of power.

(in red. Federal Law of [10.07.2012 N 117-FZ](#) )

### **Article 91. Equipment for buildings and structures equipped with automatic fire alarm systems and management evacuation in case of fire**

(In . Federal Law of [10.07.2012 N 117-FZ](#) )

1. The premises and buildings, which provide a warning system and evacuation at fire, fitted with automatic fire detection and (or) fire in accordance with the level of fire danger for buildings and

structures on analyzing fire risk. The list of objects to be equipped with these units, set regulations on fire safety.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Automatic installation of fire alarms, fire should be equipped with an uninterruptible power supply.

## **SECTION IV. Fire code to production facilities**

### **Chapter 20. General requirements for fire safety for production facilities**

#### **Article 92. Documentation requirements for production facilities**

1. Documentation of the production facilities, including buildings, structures, and processes to contain fire-performance, contemplated hereby.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. The composition and function of systems of fire safety facilities should be added as a separate section of the project documentation.

#### **Article 93. Normative values of fire risk for production facilities**

1. The value of individual fire risk in buildings, structures and areas of production facilities shall not exceed one million per year.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. The risk of death from exposure to fire hazards should be determined taking into account the functioning of the systems fire safety of buildings and structures.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. For facilities that are providing value individual fire risk of one million a year is impossible due to the specifics of the operation process is allowed to increase individual fire risk to a ten-year. This should be provided to staff training the disaster and the social protection of workers and compensate for their work in high-risk.

4. The value of individual fire risk from exposure to fire hazards at the site for people who are in a residential area, public and business area or recreational area near the site should not exceed one hundred millionth one year.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

4.1. For facilities that are for people living in the residential district, public and business area or recreational area near the site, ensuring the value of the individual fire risk one hundred millionth of one per year, and (or) social value of fire risk in one ten-year is impossible due to the specificity

operation process, the individual is allowed to increase the fire risk to one million per year, and (or) social fire risk to one hundred-thousandth year, respectively. This should be provided to alert people in the residential district, public and business area or recreational area, a fire at the production facility, as well as additional engineering and technical and organizational measures to ensure their safety and fire social protection.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

5. The value of the social impact of the fire risk of fire hazards on the site for people who are in a residential area, public and business area or recreational area near the facility shall not exceed one ten millionth year.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

**Article 93.1. Fire safety requirements to the process equipment with reference fire, fire and explosion hazard and explosive technological environments**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Development of technological equipment and related processes, the division of the technological scheme for individual technological units, its hardware design, the option of disconnecting devices and their installation, controls, management and emergency protection should provide with the elements of fire safety-exceeding the allowable values for fire risk facilities.

2. In the presence of fire in the process equipment, fire and explosion hazard and hazardous process media or the possibility of their education measures should be developed to ensure fire safety.

3. Process equipment and related processes should be designed to prevent the possibility of an explosion, and (or) fire in the process equipment with regulated values of their parameters during normal operation. Regulated parameters that determine the fire and explosion hazard of process equipment and related processes, allowable range of their changes should be set by the developer of the equipment on the basis of data on the maximum allowable parameter values or their combination for participating in processes of technological media.

4. The design of process equipment and conditions of the related processes must provide the required features and the corresponding technical means intended for the early detection of a fire emergency, limiting their future development, and to restricting the combustible substances from process equipment in the center of a possible fire.

## **Chapter 21. Order of the fire hazard analysis and calculation of the production facility fire risk**

### **Article 94. The sequence of fire risk assessment for production facility**

1. Fire Risk Assessment at the production facility must include:
  - 1) the fire hazard analysis of the production facility;
  - 2) determine the frequency of implementation of fire accidents at production facilities;
  - 3) the construction of fields of fire hazards for different scenarios of development,
  - 4) evaluation of the impacts of fire hazards on people for different scenarios of development,
  - 5) calculation of the fire risk.
2. Fire hazard analysis facilities should include:
  - 1) the fire hazard analysis of the technological environment and process variables on the production facility,
  - 2) determination of the list of emergencies and fire parameters for each process,
  - 3) determination of the list of reasons, the occurrence of which allows us to characterize the situation as a fire hazard, for each process;
  - 4) scenario-building and the development of a fire that resulted in the deaths.

### **Article 95. Fire hazard analysis facilities**

1. Fire hazard analysis process involves mapping fire danger substances and materials, seeking in the process, with the parameters of the process.
2. The list of fire danger substances and materials, depending on their physical state necessary and sufficient to describe the fire risk of the technological environment is shown in Table 1 of the annex to the present Federal Law. The list of potential sources of ignition fire-technological environment is determined by comparing the parameters of the process and other sources of ignition with the fire danger of substances and materials.
3. Determination of fire situations on the production the facility must be based on the fire hazard analysis of each of the processes and provide a choice of situations, implementation of which is a risk to people in the affected area of fire hazards and secondary Effects of exposure to fire hazards. It does not include fire management situation, as a result of which there is no danger to life and health. These situations are not considered when calculating the fire risk.
4. For each fire situation at the production facility must be a description of the causes and development of fire situations, the place of their origin and of fire, dangerous to life and health of people in their places of residence.
5. To determine the cause of fire situations should be defined events, the implementation of which

may result in a combustible environment and the appearance of an ignition source.

6. Fire hazard analysis facilities provides a definition of preventive measures that change the process parameters to a level that ensures a valid fire risk.

### **Article 96. Fire Risk Assessment at the production facility**

1. To determine the frequency of implementation of fire situations the production facility uses the information:

- 1) the failure of equipment used in the production facility;
- 2) the reliability of the parameters used in the production facility, equipment,
- 3) the erroneous actions of the staff of the production facility;
- 4) on hydro meteorological conditions in the placement of the production facility;
- 5) the geographical features in the placement of the production facility.

2. Assessment of the hazards of fire, explosion for different scenarios of development is based on the comparison of the information on the modeling of the dynamics of fire hazards in the production site and the surrounding area and information critical to human life and health values of the analyzed hazards of fire, explosion.

3. Evaluation of impacts of fire hazards, explosion on people for different scenarios fire situations involves determining the number of people involved in the kill zone hazards of fire, explosion.

### **Chapter 22. Requirements for the placement of fire stations, roads, entrance (exit) and passages, water sources on the production site**

#### **Article 97. The accommodation units of fire protection and fire stations at industrial sites**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Fire stations on the production site must be located on land adjacent to a public road.
2. Exits from fire stations should be located so as to leaving fire trucks did not cross the main traffic flow.
3. Requirements for the location of fire stations and fire station service radius shall be prescribed documents on fire safety.

## **Article 98. Requirements for roads, entrance (exit) and travel on the production site**

1. Production facilities with playgrounds larger than 5 acres must have at least two entries, except for warehouses petroleum and petroleum products I and II categories that matter the size sites must have at least two visits to the roads or public network access roads or warehouse organization.

2. For the size of the production side of the area of the object over 1000 meters and its location along the street or road on this side should include at least two entrances to the site. The distance between the ramps should not exceed 1500 meters.

3. Caged in areas of production facilities (outdoor transformer substations, warehouses and other sites) with an area of more than 5 acres must have at least two entries.

4. To buildings and facilities throughout their length shall be provided with fire vehicles access from one side with a width of a building or structure is not more than 18 meters on both sides with a width of over 18 meters, and with the device closed and semi-enclosed courtyards.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

5. For buildings with a building area of over 10,000 square meters and a width of 100 meters porch fire trucks should be provided on all sides.

6. If the working environment for not required Device road entrance fire trucks allowed to provide for planned surface hardened width of 3.5 meters in places travel with clay and sand (Salty) soils different local products with the creation of biases that provide natural drainage of surface water.

7. The distance from the edge of the roadway or planned surface affording passage fire trucks, the walls buildings up to 12 meters should be no more than 25 meters, with a height of more than 12 buildings, but no more than 28 meters - no more than 8 meters, and at the height of buildings over 28 meters - no more than 10 meters.

8. To the water bodies that emit firewater supply, as well as cooling towers, spray pond and other facilities, the water of which can be used for fire fighting should include entrances to the grounds for turning fire trucks, installation and water extraction. Size such sites must be at least 12 x 12 meters.

9. Fire hydrants should be placed along the road at a distance of no more than 2.5 meters from the edge of the roadway, but not less than 5 meters from the walls of the building.

10. Transfers or transitions through intrabuilding tracks must be free to skip the fire engines.

11. Door width road entrances to the site of the production facility should have ready Passage of basic and special fire trucks.

## **Article 99. Requirements for sources of fire water production facility**

1. Production facilities must be provided outside fire water (the fire water, natural and artificial water bodies). Placement of fire hydrants in the water system shall provide fire suppression served by this

network any building or structure or part of a building or structure. Allowed not to provide outdoor fire water supply of buildings and constructions of class F5 functional fire hazard and fire grade I and II category A for fire and explosion hazards of not more than 1,000 cubic meters, located outside the settlements of buildings and structures of functional class F5 fire danger categories A, B and C of the fire and explosion hazards of not more than 500 cubic meters of categories D and E of the fire and explosion hazards of not more than 1,000 cubic meters.

(in ver. Federal Law of [10.07.2012 N 117 - FZ](#) )

2. Supply of water for firefighting purposes in artificial ponds should be based on the estimated cost of water for the duration of external firefighting and fire-fighting.

### **Article 100. Requirements to limit the spread of fire in a production facility**

1. Distances between buildings and structures, from warehouses, open technology systems, components and equipment to buildings and structures, between warehouses, open technological installations, plant and equipment, from the gas tanks for flammable gases to buildings and structures at the production site, depending on the fire resistance of buildings category for explosion and fire hazards, and other characteristics should prevent transfer of fire from one building or structure to another.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Tank Farms production facility with oil products, liquefied petroleum gases, toxic substances should be located at lower elevations in relation to buildings and structures manufacturing facility and shall be surrounded (with relief) blowing a wall of non-combustible materials.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. In case the above-ground storage tanks for flammable and combustible liquids at higher on respect to neighboring buildings, facilities and buildings elevations should include measures to prevent the spreading of the spilled liquid to these buildings and structures in accidents at the tanks.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

4. Placing external networks with flammable liquids and gases under buildings and structures manufacturing facility is not allowed.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

5. On the perimeter areas of production facilities in the oil storage containers shall be a device closed earthen dikes or boundary wall of noncombustible materials. In addition, a closed earthen embankments or enclosing wall of non-combustible materials shall be provided around the perimeter of each stand-alone group of aboveground storage tanks and are designed for the hydrostatic pressure of the spilled liquid.

6. Within a group of above-ground storage tanks to separate the inner ramparts or boundary walls:

1) each additional tank capacity of 20 000 or more cubic meters or several smaller reservoirs with total capacity of 20 000 cubic meters

2) tanks with oil and fuel oil from other oil tanks;

3) storage tanks of leaded gasoline from other tanks of the group.

7. Free from development area diked areas formed between the inner sloping earthen embankment or boundary walls should be determined by the estimated volume spilled liquid equal to the par amount of the largest tank in the group or a stand-alone tank.

8. Earthen embankment height or boundary wall of each group of tanks, the distance from the tank wall to the sole internal slope or embankment to boundary walls are determined in accordance with the requirements of technical regulations adopted in accordance with the Federal Law "On Technical Regulation", and (or) the regulations on fire security.

(in ver. Federal Law of 10.07.2012 N 117-FZ )

9. Earthen embankment underground tanks should be provided only when stored in these reservoirs of oil and fuel oil. Area formed between the inner embankment slopes should be determined based on the confinement conditions spilled liquid in an amount equal to 10 percent of the volume of the largest underground reservoir in the group.

10. At the production site hosted aboveground pipeline networks with flammable liquids and gases prohibited to:

1) intra-transit pipelines with flammable liquids and gases - on overpasses, freestanding columns and pillars of combustible materials, and the walls and roofs of buildings, except for buildings I and II degrees of fire resistance,

2) pipelines with flammable liquids and gases - in the galleries, if mixing of these products may cause a fire or explosion,

3) pipeline with flammable liquids and gases - are burned by coverings and walls, for Coatings and walls of buildings in categories A and B Explosion hazard and fire risk;

4) flammable gas - through storage of solid and liquid fuels.

11. Aboveground pipeline network for flammable liquids routed along some props and racks should be placed at least 3 feet from building walls with openings and not less than 0.5 meters from the walls of buildings without openings.

## **SECTION V. FIRE SAFETY REQUIREMENTS TO FIRE SAFETY**

### **Chapter 23. General requirements**

#### **Article 101. Requirements for fire equipment**

1. Fire equipment shall ensure that assigned its functions in a fire.

2. Design concept and materials used fire equipment to ensure the safety during transportation,

storage, use and disposal of fire fighting equipment.

3. Marking fire equipment shall enable an identification of the product.

4. Technical documentation for fire equipment should provide information for staff training is good use of fire fighting equipment.

5. Fire fighting equipment must be tested for match its parameters to fire safety requirements in accordance with procedures established by the regulations on fire safety.

### **Article 102. Requirements for fire extinguishers**

1. Agent shall provide fire suppression surface or bulk method of submission to the characteristics of the extinguishing agent in accordance with the tactics of fighting a fire.

2. Extinguishing agents should be used for fire fighting the materials with which the interaction does not lead to the risk of new outbreaks of fire or explosion.

3. Extinguishing agents must maintain their properties needed for fire fighting during transportation and storage.

4. Extinguishing agents should not have dangerous to human and environmental exposure over permissible adopted.

### **Article 103. Requirements to automated Fire Alarm**

1. Technical means of automatic fire alarm must provide electricity and information compatibility with each other and with other collaborating with these technical means.

2. Lines of communication between the technical means of the automatic fire alarm must be capable of operation in the event of fire in the time needed to perform their functions and evacuation to a safe area.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. Control devices automatic fire equipment fire alarm to ensure the principle of administration according to the type of controlled equipment and the requirements of a particular object.

4. Automated technical means of fire alarms should be provided with uninterrupted power supply to the discharge of their functions.

5. Technical means of automatic fire alarm should be resistant to electromagnetic interference with the limit values of the level characteristic of the object to be protected, and data hardware should not be adversely affected by electromagnetic interference by other technical means used in the facility protection.

6. Technical means of automatic fire alarm must ensure electrical safety.

## **Article 104. Requirements for automatic and autonomous fire-fighting installations**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Automatic and autonomous fire-fighting should provide fire fighting surface or bulk method extinguishing agent in order to create conditions that prevent the emergence and development of the combustion process.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Fire fighting volumetrically should provide creating an environment that does not support combustion in the entire volume of the object of protection.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. Fire fighting superficial way should ensure the elimination of the combustion process by the extinguishing agent to the protected area.

4. And autonomous operation of the automatic extinguishing systems should not lead to a fire and (or) the explosion of combustible materials in the areas of buildings, structures and open sites.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

5. On the line and technical means of automatic fire extinguishing additionally subject to the requirements set out in Article 103 of the present Federal Law.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

## **Chapter 24. Requirements for primary fire extinguishing**

### **Article 105. Requirements for fire extinguishers**

1. Portable and mobile fire extinguishers shall provide fire fighting one person in the area, specified in the technical documentation of manufacturers.

2. Specifications of portable and mobile fire extinguishers should ensure human safety for firefighters.

3. The strength characteristics of structural elements portable and mobile fire extinguishers to ensure the safety of their use in fire fighting.

### **Article 106. Requirements for fire hydrants**

1. The design of fire hydrants shall be capable of opening closure by one person and the water supply to the intensity, which provides fire suppression.

2. The design of connection heads hydrants should allow them to connect to the fire hoses used in

Fire departments.

### **Article 107. Requirements for fire boxes**

1. Fire cabinets and multifunction integrated fire cabinets must provide accommodation and storage in their primary fire extinguishing.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. The design of fire fighting equipment and fire fighting equipment integrated multifunction should allow fast and safe use are in their equipment.

3. Dimensions and installation of fire fighting equipment and fire fighting equipment integrated multifunction should not lead to clutter escape routes.

4. Fire cabinets and multifunction integrated fire cabinets shall be constructed of noncombustible materials.

5. External design and content information is firefighting equipment and firefighting equipment integrated multifunctional defined regulations on fire safety, adopted in accordance with Article 4 of this Federal Law.

## **Chapter 25. Requirements for mobile fire fighting**

### **Article 108. Requirements for fire truck**

1. Basic and special fire engines should provide the following functions:

1) delivery of the fire personnel of the fire department, fire extinguishers, firefighting equipment, personal Protective equipment self-rescue firefighters, fire tools, rescue people,

2) serve in the fire extinguishing agents,

3) conduct rescue operations related to Fire Fighting (hereinafter - an emergency response)

4) the security of the tasks assigned to the fire department.

2. Requirements for construction, performance and other parameters fire vehicles shall be prescribed documents on fire safety.

### **Article 109. Requirements for firefighter aircraft, trains and ships**

Firefighting aircraft, trains and ships must be with equipment, allowing for fire fighting.

## **Article 110. Requirements for fire pumps and motor pumps**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Fire pumps should implement the fence and off the water to the fire center of water supply, reservoirs, and (or) of the open water sources with the required flow rate and operating pressure required for firefighting.

2. Of the portable fire water pumps shall be designed to carry two operators and set on the ground.

3. Trailed fire pumps must be installed permanently on a trailer. Construction trailers should ensure the security of transportation of the fire water pumps and sustainable accommodation for the fence and the water supply.

4. Fire pumps should be fed water, aqueous solutions with foam flow and operating pressure required for firefighting.,

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

5. Fire pumps, depending on their design and basic parameters must provide:

1) the supply of water and fire extinguishing solutions at normal pressure,

2) the supply of water and fire extinguishing fluids under high pressure;

3) When the water supply and extinguishing solutions at normal and high pressure.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

## **Chapter 26. Requirements for automatic fire extinguishing** **Article 111. Requirements to automated liquid and foam fire**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Automatic installation of liquid and foam fire should:

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1) early detection and automatic fire-installation firefighting

(in the red. Federal Law of [10.07.2012 N 117-FZ](#) )

2) supply of water, water or other liquids from fire extinguishing sprinkler (sprinkler, deluge) or nozzles with the required intensity of the extinguishing liquid

(in red. Federal Law of [10.07.2012 N 117-FZ](#) )

3) of the foam steam generating automatic devices foam fire extinguishing systems with the required multiplicity and intensity of the foam.

### **Article 112. Requirements to automated gas fire**

Automatic gas fire suppression must provide:

- 1) early detection of fire automatic fire alarm installation, part of the automatic installation gas fire,
- 2) the ability to delay delivery of gas extinguishing agent in the time required to evacuate people from the protected space,
- 3) creation of extinguishing concentration of gas extinguishing substances in the protected volume or above the burning material in the time it takes to fight a fire.

### **Article 113. Requirements to automated fire extinguishing**

Automatic fire extinguishing installation must provide:

- 1) early detection of automatic fire with the fire alarm system, which is part of the automatic fire extinguishing installation,
- 2) supply of powder spray automatic installations Powder fire to the required flow rate of the powder.

### **Article 114. Requirements to automated aerosol fire**

Automatic installation of aerosol fire extinguishing provide:

- 1) early detection of fire automatic fire alarm installation, part of the automatic installation of aerosol fire extinguishing
- 2) the possibility of delay extinguishing aerosol for the time required to evacuate people from the protected space;
- 3) creating extinguishing aerosol fire extinguishing concentration in the protected volume for the time needed to extinguish the fire,
- 4) the exclusion of the impact on people and combustible materials of high surface areas of the generator and fire extinguishing aerosol spray.

### **Article 115. Requirements to automated combined fire**

Automatic installation of the combined fire must meet the requirements for the installation of automatic fire, of which they are composed.

## **Article 116. Requirements for robot-extinguishing**

Robot-fire must provide:

- 1) detection and eliminating or limiting the spread of fire beyond the focal point without direct human presence in the area of the plant;
- 2) the ability to remotely control the installation and transfer of information from the operator of the plant,
- 3) the ability to install their functions under the impact of the hazards of fire or explosion, radiation, chemical or other hazardous to human and environmental exposure.

## **Article 117. Requirements to automated fire containment**

1. Automatic installation of fire containment should slow down the increase in the area of fire and the formation of its hazards.
2. Automatic installation of fire containment should be used in areas where the use of other automatic extinguishing systems impractical or technically impossible.
3. Type of fire extinguishers used at automated fire containment, determined by the characteristics of the object of protection, type and placement of fire load.

## **Chapter 27. Requirements for personal protective equipment for firefighters and citizens**

### **Article 118. Requirements for personal protective fire**

1. Protective equipment should protect personnel of the fire brigade units from the effects of fire hazards, adverse climate impacts and injuries in fire-fighting and rescue operations.
2. Protective equipment should be ergonomically combined with each other and have a light-signal elements, allows for visual observation and search fire in low visibility.

### **Article 119. Requirements for personal protective equipment Respiratory and Eyes**

1. Personal respiratory protection and to fire should protect fire when working in an environment unsuitable for breathing and irritate the eyes.
2. Personal respiratory protection and to fire should be characterized by resistance to mechanical performance and unfavorable climatic influences, ergonomics and safety indicators which established in accordance with the tactics of the rescue, rescue personnel and the need to ensure safe working conditions of firefighters.

3. Breathing apparatus with compressed air to ensure maintain pressure in the mask space in breathing person.
4. While the protective effect of breathing apparatus with compressed air (pulmonary ventilation of 30 liters per minute) should beat least 1 hour, oxygen-isolating devices - at least 4 hours.
5. The design of personal respiratory protection should provide firefighters quick replacement (without special tools) breathing gas cylinders and regenerative cartridges.
6. The use, maintenance and repair of personal respiratory protection and to fire shall be consistent with the need to ensure safe working conditions of firefighters.
7. Prohibits the use of personal respiratory protection filter action to protect firefighters.
8. Do not use oxygen breathing apparatus complete with a special protective clothing against thermal effects, except for fire fighter, and special protective clothing isolated type.

### **Article 120. Requirements for protective clothing firefighters**

1. Special protective clothing (in general, to protect against thermal effects and isolated type) should provide protection from fire hazards fire factors. The degree of protection should be characterized by performance, value which are established in accordance with the need to ensure safe working conditions of firefighters.
2. The materials used and design of special protective clothing to prevent the penetration of interior clothing fire extinguishers and enable emergency removal of clothing, pressure control cylinders breathing apparatus, reception and transmission of information (audio, visual or special devices).
3. The design and the materials used in special protective clothing isolated type must ensure the maintenance of excess air pressure in the mask space at a level ensuring safe working conditions firefighters protective clothing isolated type.
4. Special protective clothing isolated type used to extinguish fires at hazardous production facilities should provide protection from contact with the skin and into the aggressive human organs and (or) radioactive substances. Special protective clothing isolated type used in fire-fighting and rescue operations on radioactive facilities, in addition, must provide protection of vital organs from ionizing radiation. In this case, the attenuation of external radiation beta radiation with energies up to 2 MeV (source Sr90) should be not less than 150, the attenuation of external radiation gamma rays with energies of 122 keV (source Co57) - not less than 5.5.
5. Mass of special protective clothing isolated type shall allow safe working conditions of firefighters.

## **Article 121. Demands to the protection of hands, feet and head in fire**

(In red. Federal Law of [10.07.2012 N 117-FZ](#) )

1. Hand protection should protect the hands from the fire thermal, mechanical and chemical effects in fire-fighting and rescue operations.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Head protection (including helmets, helmets, balaclavas) and foot protection should protect the fire from the water, the mechanical, thermal and chemical effects for fire-fighting and rescue operations, as well as the adverse impacts.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

## **Article 122. Requirements for facilities for self-rescue**

Tools self-rescue firefighters (fire rope, belt fire and rifle fire) must withstand a static load of at least 10 kN, allow fire insurance when working at height and independent descent of fire from above.

## **Article 123. Requirements for personal protective equipment and rescue people in case of fire**

1. Personal protection and rescue of citizens in the fire to ensure the safety of evacuation or self saving people. The degree of enforcement of these functions should be characterized by resistance to mechanical performance and unfavorable climatic influences, ergonomics and safety indicators, which are established on the basis of the conditions that protect people from toxic combustion products during the evacuation of the smoke-filled room in the fire and rescue personnel with tall levels of buildings and structures.

(in ver . Federal Law of [10.07.2012 N 117-FZ](#) )

2. The design of personal protective equipment and rescue citizens of the fire should be reliable and easy to use.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Part 3.- No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

## **Chapter 28. Requirements for fire tools and advanced Fire Gear**

### **Article 124. Requirements for fire tool**

1. Fire tool depending on its functionality is required to implement:
  - 1) work on cutting, lifting, moving and fixing various building structures,
  - 2) work on punching and openings, fragmentation of structures and materials,
  - 3) work on plugging the holes in the pipes of different diameter, sealing leaks in tanks and pipelines.
2. Handheld power tools must be equipped with safety devices to prevent accidental release to the moving mechanisms of human body parts or clothing. Controls mechanized tool must fire be provided with signs that exclude ambiguous information they provide.
3. Mechanized and non-mechanized construction of fire tools permit rapid replacement work items.
4. Docking ports design fire tool to enable fast and secure link by hand without the use of a key or other plumbing tools.
5. The design fire tool should provide electrical operator for emergency and rescue operations.

### **Article 125. Requirements for additional equipment fire**

Additional equipment fire (including fire lights, thermal, acoustic beacons and beacons), depending on its purpose must provide lighting the fire, fires and search people in a smoky atmosphere, marking the location of fire and do other types of work in extinguishing the fire. The degree of enforcement of these functions must be characterized by parameters required to perform rescue operations.

## **Chapter 29. Requirements for fire equipment**

### **Article 126. General requirements for fire equipment**

Firefighting equipment (fire hydrants, hydrant, column, columns, pressure and suction hoses, nozzles, hydraulic elevator and suction mesh bag branching, connection heads, manual fire stairs) must be capable of extinguishing agent to the fire to the required flow rate and operating pressure required for firefighting in accordance with the tactics of fighting fires, as well as the penetration of personnel fire departments in the area of buildings and structures.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

### **Article 127. General requirements for fire hydrants and speakers**

1. Fire hydrants shall be installed on the external networks water and provides water for firefighting.

2. Firefighters column should allow opening (closing) of underground hydrants and fire hose connection for the selection of water from water supply systems and for the purposes of its submission firefighting.

3. Mechanical forces on control devices overlying column of fire at an operating pressure should not exceed 150 newton.

### **Article 128. Requirements for fire hoses with connection heads**

1. Fire hoses (suction, pressure-suction and pressure) must be capable of transporting fire extinguishers to the fire.

2. Connection heads should ensure prompt, tight and strong connection between a fire hose and other fire equipment.

3. Strength and performance of fire hoses and coupling heads must comply with technical the parameters of the fire divisions of hydraulic equipment.

### **Article 129. Requirements for fire trunks, foam generator and foam mixer**

1. The design of fire barrels (manual and fire monitors) should provide:

1) formation of a continuous stream or spray fire extinguishing agents (including mechanical foam low ratio) at the output of the nozzle,

2) uniform distribution of fire extinguishers on a cone flame spray jet;

3) stepless change of the jet from the solid to the spray,

4) changing the flow of fire extinguishing agents (for barrels of generic type) without interrupting their flow;

5) the strength of the barrel, sealing compounds and shut-off devices at operating pressure,

6) fixing the position of fire monitors for the given angle in the vertical plane

7) for manual and remote control mechanism for turning the fire monitors in horizontal and vertical planes of hydraulic or electric drive.

2. The design of foam generators should provide:

1) formation of the flow mechanical foam medium and high multiplicity;

2) the strength of the stem, sealing compounds and shut-off devices at operating pressure.

3. Foam mixers (with fixed and adjustable dosing) should enable the collection of an aqueous solution with a given concentration of foaming agent for foam certain multiplicity in the air-foam trunks and foam generators.

### **Article 130. Requirements for firefighters and fire lodgment Bag ramifications**

1. Fire Hose cisterns should provide association of two or more streams of water in front of the fire pump suction port. Fire Hose cisterns must be equipped with check valves on each of the combined connections.

2. Fire hose branch should ensure distribution of the main stream of water or foam solution on the working tubular lines and flow adjustment fire extinguishers in these lines. Mechanical forces on bodies Shut-off devices control fire hose branching at an operating pressure should not exceed 150 newton.

### **Article 131. Requirements for hydraulic elevator firefighters and fire suction grids**

1. Firefighters must provide hydraulic elevator extraction of water from open reservoirs with a difference of levels of the water table and the location of the fire pump more than the maximum suction lift, and remove from the premises of the water shed for firefighting.

2. Firefighters suction grid should provide filtering abstracted from open water and to prevent water ingress of solid particles that could lead to a breach of the pumps. Firefighters suction net shall be equipped with check valves.

### **Article 132. Requirements for manual fire escapes**

1. Hand fire escapes must provide fire protection personnel can not enter the premises androofs of buildings, feed in the said premises and fire extinguishing agents, as well as rescuing people from the premises without going through the escape route.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

2. Dimensions and design manual fire stairs must provide for their transportation on fire engines.

3. Mechanical strength, size and ergonomics and safety indicators manual fire ladders should provide the ability to perform tasks for people with high-rise rescue and recovery levels required fire-technical equipment.

## **SECTION VI. Fire safety requirements to products for general use**

### **Chapter 30. Fire safety requirements for substances and materials**

#### **Article 133. Fire safety requirements for information about the fire hazards of substances and materials**

1. Producer (supplier) shall develop technical documentation on the matter and materials

containing information on safe use of the product.

2. Technical documents for substances and materials (including passports, technical, technological regulations) should provide information on fire danger substances and materials.

3. Mandatory for inclusion in the technical documentation are:

1) for the gas:

- a) flammability group,
- b) the ignition temperature;
- c) the flammability limits,
- d) the maximum explosion pressure,
- d) the rate of explosion pressure rise,

2) for liquids:

- a) flammability group,
- b) a flash point,
- a) the temperature of ignition;
- d) auto-ignition temperature,
- d) temperature limits of flame propagation,

3) for solids and materials (except for building materials):

- a) the group of combustibility,
- b) the temperature of ignition;
- c) self-ignition temperature,
- d) ratio smoke,
- e) toxicity index of the products of combustion,

4) for the solid particulate matter:

- a) flammability group,
- b) the auto-ignition temperature,
- c) the maximum explosion pressure;
- d) the rate of explosion pressure rise;
- d) index of explosion.

4. The need to include more information about fire danger defines technical writer for substances and materials.

## **Article 134. Fire safety requirements for the use of construction materials in buildings**

(In ver Federal Law [of 10.07.2012 N 117-FZ](#) )

1. Building materials used in buildings and structures according to their functionality and fire.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Fire safety requirements for the use of construction materials in buildings are set in relation to fire danger of these materials, in Table 27 of the annex to the present Federal Law.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. Technical documentation for construction materials should contain information on fire danger these materials listed in Table 27 of the annex to the present Federal law, as well as fire safety measures in handling.

4. In the premises of the buildings class F5 categories A, B and B1, which are produced, used or stored flammable liquids, floors should be made of non-combustible materials or materials of flammability G1.

5. Frameworks ceilings in rooms and escape routes should be made of noncombustible materials. Painted Paint frames of non-combustible materials shall have a group of combustibility NG or G1.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

6. Application area of decorative finishing, coating and floor coverings in escape routes and nasal areas (except flooring sports arenas and sports facilities floor dance halls) in buildings for various applications, the number of stories and capacity provided in Tables 28 and 29 of the annex to the present federal law.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

7. In sleeping rooms and a ward, as well as in areas of buildings of preschool educational institutions subclass F1.1 not permitted to use decorative and finishing materials and flooring with a higher fire hazard than the class KM2.

8. Walls and ceiling rooms for music and physical education classes in pre-school educational institutions shall be of material class KM0 and (or) KM1.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

of Part 9.- 10. - Loss of power.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

11. In operating rooms and intensive care are not allowed to use materials for walls, ceilings and ceilings filled with higher fire hazard than the class KM2, and materials to cover the floor with higher fire hazard than the class of KM3.

12. In residential buildings division F1.2 is not allowed to use materials for walls, ceilings and filling ceilings with higher fire hazard than the class KM4, and materials to cover the floor with higher fire hazard than the class KM4.

13. In the changing room facilities buildings subclass F2.1 not materials may be used for walls, ceilings and ceilings filled with higher fire hazard than the class KM1, and materials to cover the floor with higher fire hazard than the class km2.

14. The reading rooms are not permitted to use materials for walls, ceilings and ceilings filled with higher fire hazard than the class KM2, and materials to cover the floor with higher fire hazard than the class of KM3.

15. In rooms and depositories of archives, and in rooms that contain service catalogs and inventories, the walls and ceilings should be provided from the class materials KM0 and (or) KM1.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

16. In showrooms Offices Buildings Division F2.2 not permitted to use materials for walls, ceilings and ceilings filled with higher fire hazard than the class KM2, and materials to cover the floor with a higher fire hazard than the class KM3.

Part 17.- No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

18. In the trading floors of buildings subclass F3.1 is not allowed to use materials for walls, ceilings and ceilings filled with higher fire hazard than the class KM2, and materials to cover the floor with higher fire hazard than the class of KM3.

19. In the waiting rooms of the buildings division F3.3 walls, ceilings, filling ceilings and floor boards should be made of materials class CMO.

Part 20. - No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

### **Article 135. Fire safety requirements for use of textile and leather materials, information about their fire danger**

1. Textile and leather materials are used according to use and fire building, structure or functionality of products, which are used for the manufacture of these materials.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Part 2.- No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. Methods for determining the resistance of materials classification features special protective clothing to an open flame regulations are set on fire security.

4. In the accompanying documents to the textile and leather materials to provide information about their fire risk and application in buildings or products for various applications in accordance with the rates specified in Table 30 of the annex to the present Federal Law.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

## **Article 136. Requirements for information on fire safety, the fire protection**

1. Technical documentation for fire protection means must contain details of the technical indicators that characterize the range of use, fire danger, the method of preparation surface types and brands of soil, method of application to the protected surface, drying conditions, flame retardant efficiency of these instruments, the way of protection against adverse climatic actions, conditions and life of flame retardants, as well as security measures during fire protection work.

2. Fire protection means is allowed to use the materials with additional coverage from giving decorative type of fire-resistant layer or its resistance to adverse climate impacts. In this case, fire-retardant efficiency should be specified to account for this layer.

## **Chapter 31. Fire safety requirements for building structures and building services and facilities**

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

### **Article 137. Fire safety requirements for building structures**

1. The design of structural elements of buildings, structures should not cause latent combustion spread through the building, construction.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Fire resistance of attachment and articulation of building structures together shall not be less minimum required fire abutting building elements.

3. The design elements that make up the slope in the floor areas of buildings, structures, functional hazard class F2, must meet the requirements for intermediate floors of the buildings.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

4. Intersection nodes enclosing structures cables, pipelines and other technological equipment must have a fire rating of not less than the required limits established for these structures.

5. Fire walls in rooms with suspended ceilings must share the space above them.

6. In the space above the suspended ceiling is not allowed provide placement channels and pipelines for transportation of flammable gases, dust-air mixtures, liquid and solid materials.

7. Suspended ceilings are not allowed to provide in spaces of category A and B for fire and explosion hazard and fire hazard.

### **Article 138. Fire safety requirements for the design and equipment of ventilation systems, air conditioning systems and smoke protection**

1. Construction of ducts and channels of supply and exhaust systems, smoke ventilation and backhaul (including ducts, sewers, mines) ventilation systems for various applications must be fire resistant and be made of noncombustible materials. Intersection nodes enclosing structures with fire-resistant channels of ventilation systems and support structures (suspension) must have fire resistance is not below the limits required for such channels. To seal the plug connections (including flange) construction fireproof duct is allowed to use only non-flammable materials.

2. Fire dampers shall be equipped with automatic and remote-controlled actuators. The use of temperature-sensitive elements in the drive normally open valves shall be provided only as a duplicate. For fire normally closed valves and smoke valve actuators used as thermal element is not allowed. Fire dampers shall provide for the required fire rating minimum required value smoke gas permeation resistance.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. Smoke ventilation hatches of natural type traction should be applied automatically and remotely operated actuators (possibly duplicated thermocouples) providing the traction needed to overcome the mechanical (including snow and wind) loads.

4. Systems, smoke exhaust fans protection of buildings and structures shall be capable of operation in distribution of high-combustion products in the time required to evacuate people (with the protection of people in escape routes), or during the time of development and fire suppression (for the protection of people in fire-safe areas).

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

5. Fireproof doors smoke gas permeation should provide for minimum required fire resistance values necessary for smoke gas permeation.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

6. Smoke screens (curtains, curtains) must be equipped with automatic and remote-controlled actuators (no thermocouple) and are made of non-combustible materials with a working length of production for at least the thickness of the resulting in a fire in Indoor smoke layer.

7. Actual values of ventilation, air conditioning and smoke protection (including fire resistance and resistance limits of smoke gas permeation) should establish by testing in accordance with procedures established by the regulations on fire safety.

### **Article 139. Fire safety requirements for structures and equipment of waste disposal**

1. Trunks waste disposal systems shall be constructed of non-combustible materials and to provide

required fire resistance and smoke gas permeation.

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. Charging valve stem waste disposal should be made of non-combustible materials, and provide a minimum resistance value for smoke gas permeation. For boot seal valves allowed the use of materials of flammability at least T2.

3. Dampers waste disposal shafts installed in the collecting chambers, shall be equipped with self-closing drive fire. Required fire dampers must be not less than the limits set for waste disposal trunks.

### **Article 140. Fire safety requirements for the elevators**

1. Passenger elevators with automatic doors and a speed movement of 1 or more meters per second should have mode designating fire hazard, including at the signal for the automatic fire alarm systems of the building, and does not require a download and direction Cabin return it to the main landing field, opening and hold open the cabin doors and landing.

2. When you exit the elevators to the corridor, lift lobby or vestibule, does not meet the requirements for air locks of type 1, door elevator shafts should have fire resistance not less than EI30 (in buildings with no more than 28 meters is allowed to use the door elevator shafts having fire resistance E30). When you exit the elevators to the corridor, lift lobby or vestibule, meets the requirements for air locks of type 1 and when you exit the elevator to the stairwell fire resistance doors elevator shafts are not standardized. Terms of placement of elevator shafts in the amount determined by the staircase regulations on fire safety.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3. The hardware, device, fire elevators, the materials from which they are made, to control systems, alarm systems, communication and power established by this Federal Law and the technical regulations for such facilities, adopted in accordance with the Federal Law "On technical regulation".

(in ver. Federal law from [10.07. 2012 N 117-FZ](#) )

4. Requirements for elevators to transport fire departments are established by technical regulations adopted in accordance with the Federal Law "On technical regulation".

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

### **Chapter 32. Fire safety requirements for electrical equipment**

#### **Article 141. Requirements for information about the fire hazard of electrotechnical products**

1. Manufacturer of electrical products shall develop technical documentation containing the

necessary information for the safe use of this product.

2. Technical documentation for electrical products(Including passports and specifications) must contain information about its fire hazard.

3. Fire danger of electrical products must comply with the application of electrical products.

#### **Article 142. Fire safety requirements for electrical equipment**

1. Electrical products should not be a source of ignition and spread of fire must exclude beyond.

2. Fire safety requirements for electrical production shall be established on the basis of its design features and applications. Electrical products should be applied in accordance with the technical documentation, determining its safe operation.

3. Design elements, used in electrical products, should be resistant to flame, glowing elements, electric arc heating in contact joints and conductive bridges.

4. Electrical products must be resistant to the emergence and spread of fire in emergency modes (short circuit, overload).

Part 5.- No longer in force.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

6. Protection devices to disconnect the circuit area of the source of power in case of emergency modes before the ignition.

#### **Article 143. Fire safety requirements for electrical equipment**

1. Electrical equipment should be resistant to the emergence and spread of fire.

2. The risk of fire in electrical equipment are not exceed one million a year.

3. The risk of fire is not determined if there is evidence of conformity of electrical products with fire safety requirements for resistance to flame, glowing elements, electric arc heating in contact joints and conductive bridges with the application of electrical products, part of the electrical equipment.

4. Electrical equipment of fire protection systems must be capable of operation in a fire during the time required to complete the evacuation of people to safety.

### **SECTION VII. CONFORMITY ASSESSMENT OF OBJECTS OF PROTECTION**

#### **(PRODUCT) Fire code**

#### **Chapter 33. Conformity assessment of protected objects (products) with fire safety**

#### **Article 144. Evaluation forms of objects to protect (Product) requirements for fire**

1. Conformity assessment of protected objects (products) organizations conducting conformity

assessment of the design, manufacture, construction, installation, commissioning, operation, storage, transportation, marketing and utilization, fire safety requirements established by technical regulations adopted in accordance with the Federal [Law "On Technical Regulation, regulations on fire safety, and provisions of contracts carried out in the forms:](#)

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 1) accreditation,
- 2) independent fire risk assessment (audit of fire safety),
- 3) of the federal state fire supervision,

(in Ed. Federal Law [of 10.07.2012 N 117-FZ](#) )

- 4) The declaration of fire safety;
- 5) (tests)
- 6) assurance of objects of protection (products);
- 7) the acceptance and commissioning of protection objects (products), as well as fire safety,
- 8) production control;
- 9) examination.

2. Conformity evaluation protected objects (products) the requirements of fire safety through independent fire risk assessment is established by normative legal acts of the Russian Federation.

#### **Article 145. Demonstration of compliance with the protection of objects (products) with fire safety**

1. Demonstration of compliance with the protection of objects (products) with fire safety in the Russian Federation shall be voluntary or mandatory, the legislation of the Russian Federation.

2. Voluntary acknowledgment of objects to protect the (product) requirements for fire safety is carried out inform of voluntary certification.

3. Mandatory security assurance of objects (products) to the requirements of this Federal Law shall take the form of declaration of conformity or in the form mandatory certification.

4. Mandatory conformity requirements for fire protection facilities shall be subject to (products) and general-purpose fire fighting equipment, fire safety requirements which are established by this Federal Law and (or) technical regulations adopted in accordance with the Federal [Law "On Technical Regulation"](#) containing requirements for individual types of products.

(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )

5. Declaration of conformity to the requirements of this Federal Law may be legal person or entity, registered as a sole trader in the Russian Federation in accordance with the legislation of the Russian Federation, which are manufacturers (sellers) of products, or a legal entity or natural person registered as a sole trader in the Russian Federation in accordance with the legislation of the Russian

Federation, performing the functions of a foreign contract manufacturer (vendor) to ensure compliance of the products supplied to the requirements hereof, and are responsible for violations of these requirements.

6. Demonstration of compliance with the protection of objects (products) with fire safety in the form of declaration of a third party shall be conducted only organizations accredited to perform such work.

7. Products meeting the fire safety has been confirmed in accordance with this federal law, marked a mark of market. If special requirements for products of different technical regulations, they are put on the market only after the confirmation of conformity of these products with the relevant technical regulations.

8. Mark of market of the manufacturer (Sellers) on the basis of a certificate of conformity or a declaration of conformity. Mark of market affixed to products and (or) on the package (package), as well as the accompanying technical documentation coming to the consumer in implementation.

#### **Article 146. Schemes of product compliance with fire safety**

1. Verification of conformity to the requirements of fire safety are carried out on mandatory confirmation compliance with fire safety requirements (hereinafter - the scheme), each of which is a complete set of operations and the conditions for their implementation. Schemes may include one or more operations, the results of which are needed to confirm conformity of production.

2. Verification of conformity to the requirements of this federal law is conducted in the following ways:

1) for a series of products:

a) Declaration of conformity based on the applicant's own evidence (Figure 1d),

b) a declaration of conformity the manufacturer (seller) based on their own evidence, and prototype test products in an accredited testing laboratory (Figure 2d);

c) the declaration of conformity the manufacturer (seller) based on their own evidence, prototype test products in accredited test laboratories and certification of the quality system in relation to the production of products (Scheme 3d);

d) certification of products based on the analysis of the production and testing of a standard sample of products in an accredited testing laboratory (Figure 2c),

e) the certification of products based on the prototype test products in an accredited testing laboratory followed the inspection control (Figure 3c),

e) certification of products based on the analysis of the production and testing of products in a standard sample accredited testing laboratory, followed by the inspection control (Figure 4c),

g) certification of products based on the prototype test products in an accredited testing laboratory and quality system certification, followed by the inspection control (Figure 5c),

2) for a limited batch of products:

a) the declaration of the manufacturer (seller) based on their own evidence, testing in an accredited testing Laboratory samples from a representative sample of the production batch (Figure 5d),

b) certification of the batch by testing samples from a representative sample of the party in an accredited testing laboratory (Figure 6c),

c) the certification of units based on a unit of production testing in an accredited testing laboratory (Figure 7c).

3. Representative sampling for testing in order to confirm product compliance with fire Security is defined in accordance with the laws of the Russian Federation.

4. 1d and 5d scheme used to verify product compliance with the fire safety of substances and materials except for:

1) construction materials

2) finishing materials for railway vehicles and metro;

3) fire protection and fire extinguishing agents.

5. Schemes 2d, 3d and 5d applied at the choice of the manufacturer (seller) to demonstrate compliance with fire safety requirements:

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

1) gas extinguishers, except nitrogen, argon, carbon dioxide, with the content of the main substance in the listed gases more than 95 percent,

2) primary fire extinguishing equipment, except for fire-extinguishers;

3) fire tools;

4) fire-fighting equipment, except for the fire barrels, foam generators, foam mixers and fire hoses,

(in ver. Federal Law of [10.07.2012 N 117 - FL](#) )

5) building materials that do not apply to trim routes evacuation of people directly to the outside or to a safe area,

Item 6)- Repealed.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

7) materials suitable protective clothing,

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

8) carpet,

9) channel engineering systems, smoke protection.

6. 3d diagram is used to confirm the compliance of mobile firefighting equipment fire safety requirements.

7. Scheme 2c, 3c, 4c, 5c and 6c applied at the choice of the applicant to demonstrate compliance with fire safety requirements:

1) mobile and portable fire extinguishers;

2) fire barrels, foam generators, foam mixers and fire hoses;

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

3) personal protective equipment in case of fire,

4) rescue equipment in case of fire,

5) equipment and products for rescue in case of fire,

6) additional equipment fire;

7 ) powder extinguishing agents, blowing agents for fire-fighting and fire-extinguishing liquids

(except water)

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

8) means fire automation;

9) devices protect electrical circuits;

10) building materials used for finishing evacuation routes directly to the outside or to a safe area;

11) finishing materials for railway vehicles and metro,

12) of fire protection;

13) designs fill openings in fire barriers, cable penetrations, cable ducts, pipes and tubes made of polymer materials for cables, cable glands,

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

14) engineering equipment systems, smoke protection, with the exception of channels of engineering systems;

15) door elevator shafts,

16) cable products that have to meet fire safety requirements:

a) wire and cable and flame retardant during the individual and (or) group laying,

b) fire-resistant cables,

c) cables with low smoke - and gas emission ,

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

17) elements of automatic fire suppression systems.

18) separate fire suppression systems.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

8. 3c scheme applies only when certifying previously certified products after the expiration of the certificate.

9. 7c scheme is used to confirm product compliance with fire safety in the event that there is no possibility of a representative sample of type specimens for testing.

10. At the request of the applicant's confirmation of conformity to requirements of fire safety by declaration may be replaced by a mandatory certification.

11. The Declaration of conformity with fire safety requirements imposed for a term not exceeding 5 years.

12. Declaration of conformity to the requirements of fire safety is carried out in accordance with the legislation of The Russian Federation.

13. If technical regulations adopted in accordance with the Federal Law "On Technical Regulation", provides a certification scheme for products other than the schemes established hereby, confirm product compliance with fire safety by the scheme, which provides the most complete control and objectivity of research, testing and measurements, including the rules of sampling.

(in ver. Federal Law of 10.07.2012 N 117-FZ )

### **Article 147. Certification Procedure**

1. Certification of products is carried out by bodies accredited in accordance with the procedure established by the Government of the Russian Federation, and the additional requirements set out in Article 148 of the Federal law.

2. Certification includes:

1) the filing of the manufacturer (seller) of the application for certification and review of submissions by an accredited certification body;

2) adoption of an accredited certification body decision on the application for certification, indicating its scheme;

3) evaluation of product compliance with fire safety,

4) the issue to accredited Certification Authority or motivated refusal to issue a certificate,

5) implementation of accredited certification inspection control of certified products, if applicable certification scheme;

6) Implementation of the manufacturer (seller) corrective actions in identifying inconsistencies products with fire safety and, if incorrectly used the sign of market access.

3. Procedure for confirmation of product compliance this Federal Law includes:

1) the selection and identification of product samples,

2) assessment of production or quality system certification (production), if provided by the certification scheme;

3) to conduct sample tests at an accredited testing laboratory;

4) examination of the documents submitted by the manufacturer (vendor) (including technical documentation, documents as, opinions, certificates and test reports) in order to determine the possibility of recognition of conformity to requirements of fire safety;

5) an analysis of the results and decide on the possibility of issuing a certificate.

4. The applicant may apply for a certification at any accredited certification body that has the right to conduct such operations.

5. The application for certification is made by the applicant for Russian, and must include:

- 1) the name and address of the applicant;
  - 2) the name and address of the manufacturer (seller)
  - 3) information about the products and identify its characteristics (name, code or the National Classification of products Code of imported products in accordance with the Commodity nomenclature of foreign economic activity, used in the Russian Federation), the technical description of the product, the instructions on how to use (operation) and other technical documentation describing the products as well as the declared quantity (mass production, batch or unit of production)
  - 4) an indication of the regulations on fire safety;
  - 5) certification scheme;
  - 6) the obligation of the applicant on the implementation of the terms and conditions of certification.
6. Accredited body, the certification within 30 days from the date of filing of the application for certification of the applicant sends a positive or negative decision on his request.
- (in ver . Federal Law of [10.07.2012 N 117-FZ](#) )
7. Negative decision on the application for certification shall contain a reasoned refusal to hold certification.
  8. A positive decision on the application for certification should include the basic conditions of certification, including information on:
    - 1) the certification scheme,
    - 2) the regulations under which the certification of conformity to requirements of fire safety;
    - 3) an organization that will analyze the state of production, if it is provided by the certification scheme,
    - 4) on the procedure for sampling products,
    - 5) on the order of testing of product samples;
    - 6), to assess the stability of the conditions of production,
    - 7) criteria for the evaluation of conformity to requirements of fire safety;
    - 8) the need to provide additional documents confirming the safety of products.
  9. Verification of conformity to the requirements hereof shall include, if provided by the certification scheme:
    - 1) the selection of test samples and test specimens,
    - 2) identification of the product;
    - 3) testing of product samples in an accredited testing laboratory;
    - 4) evaluate the stability of the conditions of production,
    - 5) analysis of the documents.
  10. Sampling of products (control samples and samples Test) is conducted in accordance with the requirements established by the legislation of the Russian Federation.
  11. Allowed to be used as a control samples subjected to certification tests, if their identification

signs and indicators as verified by the certification, remained unchanged.

12. Product samples are selected for testing and as a control, shall be of the design, content and technology manufacturing identical products supplied by the user (customer).

13. Applicant (manufacturer, seller) applied to the sample documents confirming the acceptance of products by the manufacturer (seller) and regulatory compliance, which products (or copies), and the necessary technical documents, content and composition of which are given in the decision-accredited certification body on the application for certification.

14. Following the selection of the samples must be taken to protect against spoofing or errors in sample identification.

15. Control samples should be stored for the duration of the certificate.

16. The identification was carried out as in the selection of the samples, and in Product testing to certify that the submitted samples are truly certified products.

17. Identification is to compare the main characteristics of the samples of products specified in the application for certification products and technology (supporting) documentation on it, and marked on the sample characteristics, packaging (containers), and the accompanying documents.

18. When certifying additional batch verified and the actual location of the claimed amount.

19. Identification results in the tests recorded in the test (the test report).

20. Tests for certification conducted for the accredited certification body.

21. Tests are carried out testing accredited laboratories for conducting operations.

22. In the absence of a test laboratory accredited for technical competence and independence, or its large distance, complicating transportation of samples, which increases the cost of test and extends their execution, may be testing for certification purposes testing laboratories accredited only for technical competence, regardless of manufacturer or consumer of certified products. These tests are carried out under the control of an accredited body certification. Objectivity of these tests, along with the testing laboratory provides accredited certification body who commissioned the testing laboratory to conduct.

23. According to test results testing laboratories draw up test reports and transmit them to an accredited certification body. Copies of test reports shall be kept in the testing laboratory for the life (life)certified products, but not less than three years after the expiration of the licenses issued on the basis of their certificates or decisions not to issue certificates.

24. The test report (test report) must contain the following information:

1) identification of the test (test report), number and numbering each page of the protocol, and the total number of pages,

2) information about the test of the test;

3) information on the accredited certification body, commissioned a test;

4) identification information provided on product testing, including the manufacturing of products;

- 5) the basis for testing;
  - 6) a description of the program and methods of test or reference standard test methods;
  - 7) information on the selection of samples,
  - 8) test conditions,
  - 9) information about the used measuring instruments and test equipment;
  - 10) verifiable indicators and requirements, information on regulations containing these requirements;
  - 11) the actual values of the tested samples, including interim periods, in accordance with the relevant criteria evaluating and specifying the estimated or actual measurement error;
  - 12) information about the tests performed by another testing laboratory,
  - 13) the date of issue of the test (test report).
25. The test report (test report) must be signed by all persons responsible for their conduct, approved by the head (deputy) accredited testing laboratory (center) and sealed by an accredited testing laboratory (center). To the test report (report test) is attached act sampling with all annexes.  
(in ver. Federal Law [of 10.07.2012 N 117-FZ](#) )
26. The test report (test report) should include the necessary volume information to obtain similar results in the case of re-testing. If the result of a test is a qualitative assessment of conformity with the requirement in the test (the test report) provides information on from which we obtain a result.
27. Not allowed are some changes in the text of the test (test report) after its release.
28. Do not place in the test (the test report) overall ratings, recommendations and advice to address the shortcomings or improvement of the product tested.
29. The test report (test report) applies only to the samples tested.
30. Analysis of the production is carried out in order to establish conditions necessary for the manufacture of products with stable characteristics, audited for certification.
31. Stability Assessment of production conditions must be carried out not earlier than 12 months prior to the issuance of certificate based on the analysis of the production (scheme 2c and 4c) or certification of production or the quality system of production (Figure 5c).
32. The basis for the analysis of the production is the decision of an accredited certification body. Accredited certification body may request an inspection of production state organization with a staff of experts on certification of the product or experts certification of quality systems and production. In that case, issued a written order founded an accredited certification body.
33. In conducting the analysis of the production must examined:
- 1) processes;
  - 2) process documentation,
  - 3) tools, jigs and fixtures,
  - 4) technological regimes,

- 5) management of technological equipment,
  - 6) control metrology equipment;
  - 7) Testing and measurement techniques;
  - 8) procedures for control of raw materials and components;
  - 9) the procedure for production control in the process of production,
  - 10) Control of nonconforming product;
  - 11) procedure for handling complaints.
34. Deficiencies identified during the audit are classified as major or minor discrepancies.
35. Significant discrepancies are:
- 1) lack of regulatory and technical documentation for the products;
  - 2) the lack of description of the operations, indicating technological equipment, points of order and control,
  - 3) the lack of necessary funds and equipment, and controls and tests;
  - 4) the use of controls and tests that have not been metrological control, as appropriate and in a timely manner;
  - 5) the absence of documented control procedures, ensuring the stability of the product characteristics, or non-compliance.
36. The presence of significant imbalances indicates unsatisfactory production.
37. If you have one or more essential inconsistencies organization must corrective measures as agreed upon with the accredited certification body.
38. Inconsequential comments should be addressed within the date of the next inspection control.
39. According to the audit report shall be drawn on the results of the analysis of the production of certified products. The act shall include:
- 1) the results of the audit;
  - 2) additional materials used in the analysis state of production of certified products,
  - 3) overall assessment of the production,
  - 4) the necessity and timing of the corrective action.
40. Act on the results of the analysis of the production certified products is kept by an accredited certification body, and a copy is sent to the applicant (manufacturer, seller).
41. The decision on the confidentiality of information obtained in the course verification, the inspecting organization.
42. Accredited certification body considers the results of the analysis of the production, along with the test report (test report) when making a decision on the possibility and the conditions for issuing the certificate.
43. Accredited certification body after an analysis of the test (test report), results of the analysis of the production (if it is established by the certification scheme) and other documents on the product

compliance with fire Security is preparing to issue a decision (to refuse to issue) certificate.

44. Based on the decision to issue the certificate of compliance with fire safety accredited body Certification prepares certificate, register it with the single register in the prescribed manner and shall provide the applicant (manufacturer, seller). The certificate is valid only if the serial number.

45. With negative results of conformity assessment product to specified requirements accredited certification body issues a decision to refuse to issue a certificate stating the reasons.

46. Certificate of compliance with the requirements of this Federal law shall be in accordance with the laws of the Russian Federation.

47. Certificate of compliance with fire safety requirements may have an application that contains a list of specific kinds and types of products to which it applies.

48. For products produced commercially, the validity certificate of compliance with fire safety requirements set for the schemes:

- 1) 2s - not more than 1 year;
- 2) 3s - not more than 3 years
- 3) 4c and 5c - no more than 5 years.

49. For products produced singly or in batches (circuit 6c and 7c), valid certificate of compliance issued by the fire safety requirements established before the end of shelf life (life) of these products, for which the manufacturer in accordance with the legislation of the Russian Federation shall provide consumers the ability to use products as directed. After the specified term production can no longer meet the requirements for fire safety. If such period is not set by the manufacturer, the validity of the certificate is 1 year.

50. For the products sold by the manufacturer during the term, the certificate on the serial products (mass production), the certificate is valid after the supply, sale until the expiration date (the service), during which the manufacturer in accordance with the legislation of the Russian Federation shall provide consumers the ability to use products as directed. If the term of the manufacturer is not established, then this production certificate is valid for one year from the date it expires. During the same periods was valid and batch certificate products.

51. Upon expiration of the certificate serial products, certified by schemes 4c and 5c, the term The certificate for the same products can be extended by the accredited certification body, conducted the previous certification, based on the positive results of the inspection control of the production and the test (Test Report) conducted with the previous trials on an abbreviated program. For renewal of a certificate of compliance to the applicant sends accredited certification request to extend the term of the certificate compliance, containing a statement that since the inspection control of changes to the formula and manufacturing process certified products, influencing its security, contributed. The request must be with the original previously issued certificate of conformity.

52. When you make changes to the design (composition) of the products or the technology of

production, the manufacturer shall notify the accredited certification body that issued the certificate. Accredited certification body shall decide on the distribution of the certificate for the upgraded products or the need for further tests or additional estimates of production of the products.

53. Inspection control of the certified products carry accredited certification bodies, conducted its certification, if necessary with the assistance of representatives of the testing laboratory performing the tests. Inspection control is in the form of periodic and unscheduled inspections, provide information about certified products in the form of test results and analysis of the production of compliance with the terms and conditions of the certificate and a sign of market in order to confirm that the products during the time of the certificate continues to comply with fire safety requirements.

54. Inspection control of the certified products is conducted at the term of the certificate for more than 1 year:

- 1) no more than once during the period of the certificate issued for up to 2 years inclusive;
- 2) at least two times during the period of the certificate issued for a period of 2 to 4 years inclusive;
- 3) at least three times during the period of the certificate issued for more than 4 years.

55. The criteria to determine the frequency and volume of supervisory control is the degree of potential risk products, the results of product certification, production stability, volume production, the availability of certified quality system of production and cost inspection control.

56. Volume, frequency, content and order of inspection control established in the decision-accredited certification body to issue a certificate.

57. Unscheduled inspection control is carried out in case receipt of the claim to the safety of consumer products, trade organizations, as well as the bodies exercising public or state control the quality of the products to which the certificate was issued.

58. Inspection control typically includes:

- 1) analysis of material certification,
- 2) analysis of the incoming information on certified products,
- 3) verification of compliance documents for certified production requirements hereof;
- 4) the selection and identification of samples, testing the samples and analysis of the results,
- 5) inspection of the production, if it is provided certification scheme;
- 6) analysis of the results and the decisions taken on the results of monitoring,
- 7) verification of corrective actions to address previously identified gaps;
- 8) check mark of labeling products on the market;
- 9) analysis of claims for certified products.

59. Content, scope and procedure of the test during the inspection control determines the accredited body certification, conducting monitoring.

60. As the test results confirming the conformity of production shall be allowed the use of protocols periodic test or organized by the manufacturer, as well as tests conducted by the manufacturer or

organized in the presence of an accredited certification body for the program developed by him and subject to the conditions necessary for the reliability of results.

61. In the case of negative results when tested by the manufacturer or organized in the presence of an accredited certification body should be held again retesting of samples accredited testing laboratory. Retest results are final and apply to all certified products.

62. Inspection testing of products certified in accordance with the scheme 3c conducted only by accredited test laboratories.

63. Unscheduled inspection of the production is carried out in the presence of information about violations of this Federal Law.

64. The results of the inspection control executed act of inspection control.

65. In the act of inspection control, it is concluded according to the requirements of this product Federal law, the stability of their performance and the possibility of preservation of the issued certificate or suspension (abolition) of the certificate.

66. In carrying out corrective measures accredited Certification Body:

- 1) suspend the certificate of conformity with the requirements hereof;
- 2) inform in due course the state control (supervision) on the suspension or termination of the certificate of compliance with the requirements hereof;
- 3) establish the deadline by the manufacturer (seller) of the corrective action;
- 4) monitors the implementation of the manufacturer (seller) corrective actions.

67. Once the corrective actions implemented and their results are satisfactory, an accredited certification body renews the certificate.

68. In case of default by the manufacturer (seller) corrective action, or in the event of failure accredited certification body shall terminate the certificate and the certificate holder shall issue a decision to cancel the certificate.

69. The grounds for consideration of termination of this can be:

- 1) change the structure (composition) and completeness of products;
- 2) changes in the organization and (or) production technology;
- 3) change (failure), the technology requirements, methods of inspection and testing, quality assurance system,
- 4) communication of public authorities or associations of consumers on product nonconformity, controlled for certification
- 5) materials inquiries on fires, the results of inspections conducted by federal agencies of state fire control and other regulatory authorities,  
(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )
- 6) the negative results of the inspection control certified products;
- 7) refusal or failure to provide the possibility of inspection control of certified products in the terms

established by an accredited certification body,

8) the reorganization of the legal entity, including conversion(Change of the legal form).

9) breach of certification procedures established by this Article.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

70. If by the corrective actions agreed with the accredited certification body, the manufacturer (seller) can remove the detected causes nonconforming product requirements hereof and to confirm the removal of the non-compliance without re-testing by an accredited testing laboratory, the certificate is suspended. If the manufacturer (seller) cannot eliminate the root cause of production requirements of this Federal Law, the certificate ceases. Certificate excluded from a single register, the manufacturer (seller) must return the certificate to the accredited certification body that issued the certificate.

71. If an accredited certification body decides to suspend the certificate, it points in addressing the identified deficiencies and sets deadlines for their elimination.

72. Termination and withdrawal of the certificate is legalized decision accredited certification body.

73. The decision to suspend or terminate the certificate is awarded on receipt or sent by mail manufacturer (seller) for 7 days.

74. Resubmission of the product certification by the general procedure.

#### **Article 148. Additional requirements to be considered for accreditation of certification bodies, testing laboratories (centers)**

1. Organization applying for accreditation as a testing laboratory, the certification shall be equipped with its own equipment, measuring instruments, and supplies (chemicals or other substances) for proper testing. Test equipment, measuring instruments must comply with the established by the legislation of the Russian Federation; the measurement technique must meet the regulatory requirements for testing methods. Use of the test laboratory test equipment and measuring instruments, not belonging to this test laboratory is permitted only if:

1) we use expensive equipment or equipment that does not have a wide distribution, or additional devices skilled care,

2) equipment testing laboratory used regularly. The volume of work performed by such equipment shall not exceed 10 percent of total work carried out during the year;

3) own equipment testing laboratory during the test of time is defective or is in the process passing the certification or verification.

2. The equipment must be taken into account in the relevant documents laboratory in accordance with the rules of accreditation, and the laboratory must have the written consent of the owner of equipment (lease agreement, a cooperation agreement and other documents) to provide it to the

test at the right time, and to ensure its suitability for the purpose and the ability to control his condition.

3. Equipment and measuring instruments that do not belong testing laboratory, can be used only when such equipment is certified and tested means of measurement, as appropriate.

4. Organization applying for accreditation as a certification body for compliance with the requirements hereof, may be accredited if:

- 1) a part of this organization has an accredited laboratory with the same area of accreditation,
- 2) in this organization are specialists (experts) certified in procedure established by the federal executive body authorized to solve problems in the field of fire safety.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#))

### **Article 149. Features conformity substances and materials with fire safety**

Demonstration of compliance with substances and materials requirements hereof is held by declaring their compliance or mandatory certification required application of the test, indicating values of the indicators established by this Federal Law, the documents confirming compliance of substances and materials.

### **Article 150. Features of Conformity fire protection**

1. Demonstration of compliance with fire protection means is in the form of certification.
2. For certification applicant shall submit to an accredited certification body supporting documents in which must include the basic parameters, scope and manner of use of fire protection.

3. Test reports of testing laboratories must contain values of indicators characterizing the flame retardant effectiveness of fire protection systems, including various versions of their application, as described in the accompanying documents.

4. The certificate must contain the following special Features of fire protection:

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

- 1) the name of fire protection,
  - 2) the value of fire-resistance set for testing;
  - 3) species, grade, thickness of layers of ground, weather resistance or decorative coatings, used in combination with data fire protection means for certification testing;
  - 4) fire-retardant coating thickness of fire protection for the installed fire-resistance rating.
5. Marking of fire protection to be applied to producers in the products may contain only the information that confirmed the certification.

## **SECTION VIII. FINAL PROVISIONS**

### **Chapter 34. Final provisions**

#### **Article 151. Final provisions**

1. From the date of entry into force of this Federal Law, before the coming into force of the requirements of technical regulations for protected objects (products), processes of production, operation, storage, transportation, sale and disposal (Decommissioning), established by normative legal acts of the Russian Federation and the regulations of the federal bodies of executive power, are binding in the extent not inconsistent with the requirements hereof.

2. Before the coming into force of the relevant technical regulations scheme declaration of conformity with fire safety requirements based on their own evidence used for the production of general purpose only manufacturers or legal persons who perform the functions of the foreign manufacturer.

3. Accreditation documents issued in the prescribed manner bodies operating certification, testing laboratories (centers) before the coming into force of the present Federal law, as well as proof of compliance with fire safety products made prior to the date on of this Federal Law shall be valid until the end of the period specified therein.

#### **Article 152. The entry into force of this Federal Law**

This Federal Law shall enter into force nine months from the date of its official publication.

*Russian President*

*MEDVEDEV*

Kremlin, Moscow,

22 July 2008

N 123-FZ

*Application  
to the Federal Law "Technical  
regulations about Fire  
Safety "*

(In ver. Federal Law of 10.07.2012 N 117-FZ )

Table 1.

The list of indicators to assess fire risk substances and materials, depending on their physical state

Fire danger	Substances and materials in a different state of aggregation			Dust
	gaseous	Liquid	solid	
Maximum experimental safe gap, mm	+	+	-	+
Of toxic products of combustion per unit mass of fuel, kilogram per kilogram	-	+	+	-
Group flammability	-	-	+	-
Flammability	+	+	+	+
Group of flame propagation	-	-	+	-
Coefficient of smoke, a square meter per kilogram	-	+	+	-
Emissivity of the flame	+	+	+	+
Fire and explosion hazard index, Pascal per meter per second	-	-	-	+
Flame Spread Index	-	-	+	-
Oxygen index, volume percents	-	-	+	-
Flammability limits (ignition) in gases and vapors, volume percentages, dusts, kilograms per cubic meter	+	+	-	+
Concentration limit of diffusion combustion of gas mixtures in air, volume percent	+	+	-	-
The critical surface heat flux, watts per square meter	-	+	+	-
Linear flame speed, meters per second	-	-	+	-
Maximum flame spread along the surface of the combustible fluid meter per second	-	+	-	-
The maximum explosion pressure, pascal	+	+	-	+
The minimum concentration of gaseous phlegmatizer, volume percent	+	+	-	+

The minimum ignition energy, the joule	+	+	-	+
Minimum explosive oxygen content, volume percent	+	+	-	+
Lower operating heat of combustion, kilojoule per kilogram	+	+	+	-
Normal flame speed, meters per second	+	+	-	-
Toxicity index of the products of combustion, grams per cubic meter	+	+	+	+
Oxygen consumption per unit mass of fuel, kg per kilogram	-	+	+	-
Speed limit disruption of the diffusion flame meter per second	+	+	-	-
Rate of explosion pressure rise, mega Pascal per second	+	+	-	+
Ability to burn in contact with water, oxygen and other substances	+	+	+	+
The ability to fire an adiabatic compression	+	+	-	-
The ability to self-ignition	-	-	+	+
Ability to exothermic decomposition	+	+	+	+
Ignition temperature, degree Celsius	-	+	+	+
Flash point, degrees Celsius	-	+	-	-
Auto-ignition temperature, degrees Celsius	+	+	+	+
Temperature smoldering degree Celsius	-	-	+	+
Temperature limits of flame propagation (ignition), degrees Celsius	-	+	-	-
The mass rate of burning, a kilogram per second per square meter	-	+	+	-
Specific heat, joule per kilogram	+	+	+	+

Notes:

1. A "+" indicates that the figure should be used.
2. The "-" means that the index is not used.

Table 2

Classification of flammable building materials by value index toxicity of combustion products

Class of danger	Toxicity index of the products of combustion, depending on the exposure time			
	5 minutes	15 minutes	30 minutes	60 minutes
Low hazard	more than 210	More than 150	More than 120	more than 90
Moderate hazardous	more than 70 but not more than 210	more than 50 but not more than 150	more than 40 but not more than 120	more than 30 but not more than 90
High-risk	More than 25 but not more than 70	More than 17 but not more than 50	more than 13 but not more than 40	more than 10 but not more than 30
Extremely hazardous	no more than 25	not more than 17	no more than 13	no more than 10

Table 3

**Fire danger classes of building materials**

(In ver. Federal Law of 10.07.2012 N 117-FZ )

Fire hazard properties of building materials	Fire Prevention Class of building materials based on groups					
	KM0	KM1	KM2	KM3	KM4	KM5
Combustibility	NG	G1	G1	T2	T3	G4
Flammability	-	B1	B2	B2	B2	B3
Smoke-forming ability	-	D2	D2	D3	D3	D3
Toxicity	-	T2	T2	T2	T3	T4
Flame spread	-	WP1	WP1	WP2	WP2	WP4

Note. The list of fire danger of building materials, sufficient to assign classes of fire danger KM0 - KM5 be determined in accordance with Table 27 of this application.

Table 4

Degree of protection against electrical fire safety of solid foreign objects

The first digit	Brief description of the degree of protection
0	no protection
1	protected against solid foreign objects with a diameter 50 mm or more
2	protected against solid foreign objects with a diameter of 12.5 and a millimeter
3	protected against solid foreign objects of 2.5 mm or more
4	protected against solid foreign objects with diameter of 1 mm or more
5	Dust-proof, sealed against dust in quantities interferes with the normal operation of the equipment and reduces its security
6	dustproof, sealed against dust

Table 5

Electrical fire safety protection level against water

The second digit	Brief description of the degree of protection
0	no protection
1	protected against vertically falling water drops
2	protected against vertically falling water drops when the shell is deflected by an angle of 15 degrees
3	protected by water falling as rain at an angle of 60 degrees
4	protected from the continuous spraying of any direction
5	Protected against water jets from a nozzle with an inner diameter of 6.3 mm
6	Protected against water jets from a nozzle with an inner diameter of 12.5 mm
7	protected from the effects of immersion in water for not more than 30 minutes
8	protected from the effects of immersion in water for more than 30 minutes

Table 6

The procedure for determining fire danger class constructions

Fire rating class structures	Supposed size structural damage, centimeters		Availability		Allowable characteristics of fire danger damaged material +		
			thermal effect	Combustion	Group		
	vertical	horizontal			combustibility	Flammability	smoke-forming ability
K0	0	0	no	no	no	no	no
K1	no more than 40	no more than 25	not regulated	no	no higher than T2 +	no higher than B2 +	no higher than D2 +
K2	more than 40 but not more than 80	More than 25 but not more than 50	no regulated	no	no higher than T3 +	no higher than B3 +	no higher than D2 +
K3	Not Regulated						

Note. A "+" indicates that in the absence of the thermal effect is not regulated.

Table 7-11 - Loss of power. (in ver. Federal Law of 10.07.2012 N 117-FZ )

Table 12

Fireproof distance from buildings and structures at the warehouse of oil and petroleum products to neighboring objects protect them

(In ver. Federal Law of 10.07.2012 N 117-FZ )

Name objects adjacent to the buildings and facilities of oil and petroleum products storage	Fireproof distance from buildings warehouses of oil and petroleum products to neighboring objects in their categories warehouse, meters
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	I	II	IIIa	IIIb	IIIc
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )					
Buildings and structures adjacent to their facilities	100	40 (100)	40	40	30
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )					
Forestry (parks) with forest vegetation: coniferous and mixed hardwood species	100 100	50100	50 50	50 50	50 50
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )					
Warehouse timber, peat, fibrous combustible materials, straw, hay, and bedding of peat land open	100	100	50	50	50
Railways public network (to the foot embankment or edge notches) on stations and platforms for traveling on the track	150 80 60	100 70 50	80 60 40	60 50 40	50 40 30
Highways public network (edge of the roadway): I, II and III categories IV and V category	75 40	50 30	45 20	45 20	45 15
Residential and public buildings	200	100 (200)	100	100	100
Dispensers of public filling stations	50	30	30	30	30
Individual garage and outdoor parking for cars	100	40 (100)	40	40	40
Sewage treatment plant and sewage pumping stations, non-warehouse	100	100	40	40	40
Water-filled structures not related to the warehouse	200	150	100	75	75
Emergency Capacity (emergency capacity) for the tank farm	60	40	40	40	40
Process units in categories A and B, the explosion and fire hazard and flares for burning gas	100	100	100	100	100

Note. In parentheses are the values for the storage category II with a total capacity of more than 50 000 cubic meters.

Table 13

Fireproof distance from buildings to warehouses of combustible liquids

(In ver. Federal Law of 10.07.2012 N 117-FZ )

Storage capacity, cubic meters	Fire-distance for the fire resistance of buildings, yards,		
	I, II	III	IV, V
(In ver. Federal Law of 10.07.2012 N 117-FZ )			
No more than 100	20	25	30
More than 100 but not more than 800	30	35	40
More than 800 but not more than 2000	40	45	50

Table 14

Categories of warehouses for storage of oil and oil products

Category warehouse	The maximum volume of one tank, cubic meters	The total capacity of the warehouse, cubic meters
I	-	100 000
II	-	more than 20 000 but not more than 100,000
IIIa	to 5000	More than 10 000 but not more than 20 000
IIIb	up to 2000	more than 2,000 but not more than 10 000
IIIc	not more than 700	up to 2000

Table 15

Fireproof distance from gas stations gasoline and diesel fuel to neighboring sites with

Name of the object to which are determined by the distance fire	Fireproof distance from gas stations with underground tanks, meters	Fireproof distance from gas stations with aboveground tanks, meters	
		a total capacity of more than 20 cubic meters	of not more than 20 cubic meters
Production, storage, administrative and domestic buildings of Industrial Organizations	15	25	25
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )			
Forestry (parks) with forest vegetation: coniferous and mixed breeds Hardwood	October 25	40 15	December 30
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )			
Residential and public buildings	25	50	40
Crowded places	25	50	50
Individual garage and outdoor parking for cars	18	30	20
Kiosks	20	25	25
Highways public network (edge of the roadway): I, II and III categories IV and V category	September 12	December 20	September 15
Routes electrified public transportation (to the contact network)	15	20	20
Railways public network (to the foot embankment or edge extraction)	25	30	30
Sewage water treatment plants and pumping stations that do not belong	15	30	25

to petrol stations			
Technological systems categories AN, BN, GN and buildings to the presence of radioactive and hazardous substances I and II classes of danger	-	100	-
Warehouse timber, peat, fibrous combustible materials, straw, hay, and bedding of peat land open	20	40	30

Table 16 - No longer in force.  
(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Table 17

Fireproof distance from the reservoir to the stock with a total capacity of up to 10 000 cubic meters of storage under pressure or 40,000 cubic meters of storage isothermal method to buildings and structures of objects, not related to the storage

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Name buildings	Fire-distance meters			
	Aboveground storage tanks under pressure, including isothermal floor	Underground storage tanks under pressure	Aboveground tanks isothermal	Underground tanks isothermal
(In red. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				
Tramways and trolley lines, railroads, public network (or to the foot of the embankment edge recesses)	100	75	100	75
Highways public	50	50	50	50

network (edge of the roadway)				
Line power (Air), high voltage (from the base of the embankment)	not less than 1.5 feet or			
Border areas related organizations (to guard)	300	250	300	200
Residential and public buildings	outside of the sanitary protection zone, but not less than 500	outside of the sanitary protection zone, but not less than 300	outside of the sanitary protection zone, but not less than 500	outside of the sanitary protection zone, but not less than 300
CHP	200	200	200	200
Timber depots and solid fuels	200	150	200	150
Forestry (parks) with forest plantation softwood (from Gated community organization or warehouse)	100	75	100	75
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				
Forestry (parks) and hardwood forest stands (from the fence area organization or warehouse)	20	20	20	20
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				
Internal surface and underground process piping, non-warehouse	outside the dikes, but no closer than 20	at least 15	outside the dikes, but no closer than 20	at least 15

Buildings and structures in the organization production area in the reservoir volume, cubic meters: 2000-5000 6000-10 000	150 250	120 200	150 200	100 125
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				
Flare (to the trunk flare)	150	100	150	200
Buildings and structures in the area adjacent to the territory of the organization (administrative area)	250	200	250	200
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				

Table 18

Fireproof distance from liquefied petroleum gas storage with a total capacity of 10 000 to 20 000 cubic meters of storage under pressure or from 40 000 to 60 000 cubic meters of storage isothermal method in aboveground tanks or from 40 000 to 100 000 cubic meters of storage isothermal method in underground reservoirs that make up the inventory of raw materials to industrial and civil projects

Name buildings	Fire-distance meters			
	Aboveground storage tanks under pressure	Underground storage tanks under pressure	Aboveground tanks isothermal	Underground tanks isothermal
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				
Tramways and trolley lines, access tracks (up to the foot embankment)	100	50	100	50

or edge extraction) and road public network (the edge of the roadway)				
Power lines (overhead)	not less than 1.5 feet or	not less than 1.5 feet or	height of not less than 1.5 supports	not less than 1.5 feet or
Buildings and structures of production, storage, utility area commodity base or warehouse	300	250	300	200
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				
Buildings and structures factory front (administrative) area organization	500	300	500	300
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				
Flare (to the trunk flare)	200	100	200	100
Border areas related organizations (to guard)	300	200	300	200
Residential and public buildings	outside sanitary protection zone, but not less than 500	outside of the sanitary protection zone but not less than 300	outside of the sanitary protection zone, but not less than 500	outside of the sanitary protection zone, but not less than 300
CHP	300	200	300	200
Forestry (parks) with forest plantation softwood (from the fence commodity base or warehouse)	100	75	100	75
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				

Forestry (parks) with forest plantation hardwood (from the fence commodity base or warehouse)	20	20	20	20
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )				
Objects of river and sea transportation, waterworks, bridges at the location of warehouses downstream of these facilities	300	200	300	200
What's river and sea transport, hydraulic structures, bridge at the location of storage upstream of these objects	3000	2000	3000	2000

Table 19

Fireproof distance from reservoir units of liquefied petroleum gas to protected objects

Buildings, structures and communication	Fireproof distance from the tanks, meters						Fireproof distance from the evaporator or a group of balloon installation, meters
	aboveground			underground			
	with a total storage capacity to install, cubic meters						
	no more than 5	more than 5 but not more than 10	more than 10 but not more than 20	no more than 10	more than 10 but not more than 20	more than 20 but not more than 50	
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )							
Public buildings and facilities	40	50 +	60 +	15	20	30	25

(In ver. Federal Law of 10.07.2012 N 117-FZ)							
Residential buildings	20	30 +	40 +	10	15	20	12
Children and sports, garages (from reservoir fence installation)	20	25	30	10	10	10	10
Industrial buildings (industrial, agricultural organizations and public services of industrial character)	15	20	25	8	10	15	12
Sewerage, heating (underground)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Aboveground structures and communication (overpass, heat), non-reservoir installation	5	5	5	5	5	5	5
Plumbing and other channel-free communication	2	2	2	2	2	2	2
Wells underground utilities	5	5	5	5	5	5	5
Railways public network (to the foot embankment or edge of the excavation of tanks)	25	30	40	20	25	30	20
Access roads railways industry organizations, tramways (to the rail), highways I-III categories (to the edge of the roadway)	20	20	20	10	10	10	10
Highways IV and V classes (to the edge of	10	10	10	5	5	5	5

the roadway) organizations							
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Note. The "+" denotes the distance from the reservoir setting organizations to buildings and structures that are not served by the installation.

(in ver. Federal Law of 10.07.2012 N 117-FZ )

Table 20

Fireproof distance from reservoir units of liquefied petroleum gas to protected objects

Buildings, structures and communication	Fireproof distance from the tanks of liquefied petroleum gas, meters		Fireproof distance from the premises, facilities that use liquefied petroleum gas meters							Fireproof distance from the storage tanks with a total capacity filled, meters	Fireproof distance from the storage tanks with a total capacity filled, meters	
			aboveground				underground					
			with a total capacity of one tank, cubic meters									
	more than 20 but not more than 50	more than 50, but not more than 200	more than 50 but not more than 500	more than 200 but not more than 8000	more than 50 but not more than 200	more than 50 but not more than 500	more than 200 but not more than 8000					
Maximum capacity of one tank, cubic meters												
no more	25	50	100	100, no	25	50	100	more			no more	more

	e than 25				mor e than 600				than 100 but not mor e than 600		e than 20	than 20
(In ver. Federal Law of <a href="#">10.07.2012 N 117-FZ</a> )												
Residential and public buildings	70	80	150	200	300	40	75	100	150	50	50	100
Administrative , household, industrial buildings, buildings boiler rooms, garages and outdoor parking	70 (30)	80 (50)	150 (110 ) +	200	300	40 (25)	75 (55) +	100	150	50	50 (20)	100 (30)
Aboveground structures and communicatio n (ramps, heating), ancillary buildings residential buildings	30 (15)	30 (20)	40 (30)	40 (30 )	40 (30)	20 (15)	25 (15)	25 (15 )	25 (15)	30	20 (15)	20 (20)
Railways public network (from the base of the mound), highways I-III	50	75	100	10	100	50	75	75	75	50	50	50

categories												
Access roads railways, roads, institutions, tramways, roads IV and V category	30 (20)	30 - (20)	40 - (30)	40 (30 )	40 (30)	20 - (15)	25 - (15)	25 (15 )	25 (15)	30	20 (20)	20 (20)

Notes:

1. In parentheses are the values of the distances from the tanks of liquefied petroleum gas storage and filling, situated in the territories of organizations to their buildings.

(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

2. The "-" indicates that allowed to reduce the distance from the tank filling stations with a total capacity of 200 cubic meters above ground to 70 meters in the underground - up to 35 meters, and with a capacity not exceeding 300 cubic meters - respectively 90 and 45 meters.

3. A "+" indicates that allowed to reduce the distance from the railway and roads to LPG tanks with a total capacity of 200 cubic meters above ground to 75 meters and in the underground performance of up to 50 meters. Distance from the access, tram routes passing outside the organization to LPG tanks with a total capacity of 100 cubic meters is allowed to decrease: in the above ground to 20 meters and in the underground performance of up to 15 meters, and the passage ways and roads on the territory of the organization, these distances are reduced to 10 meters underground tanks performance.

Table 21

Compliance with the fire resistance and fire resistance of buildings, structures and fire compartments

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Fire resistance of buildings and fire compartment	Fire-resistance of building structures								
	Bearing walls, columns and other	Exterior curtain wall	Intercommunicati on overlap (including attic and the cellar)	Building structures built-up coatings		Building construction stairway		interior	marche
				Flooring	trusses,				

s	supporting elements			(including insulation)	beams, purlins	walls	s and stairs
(In ver. Federal Law of 10.07.2012 N 117-FZ )							
I	R 120	E 30	REI 60	RE 30	R 30	REI 120	R 60
II	R 90	E 15	REI 45	RE 15	R 15	REI 90	R 60
III	R 45	E 15	REI 45	RE 15	R 15	REI 60	R 45
IV	R 15	E 15	REI 15	RE 15	R 15	REI 45	R 15
V	not specified	not specified	not specified	not specified	not specified	not specified	not specified

Note. Procedure for classification of building structures to the supporting elements of the building and construction set regulations on fire safety.

(in ver. Federal Law of 10.07.2012 N 117-FZ )

Table 22

The corresponding class of structural fire hazard and fire risk class of buildings, structures and fire compartments

(In ver. Federal Law of 10.07.2012 N 117-FZ )

Structural fire danger class building	Fire protection of building structures				
	Truss rod elements (columns, beams, girders)	Exterior walls on the outside	Walls, partitions, floors, and cover built-up	The walls of the staircases and fire barriers	Flights and landings of stairs in the stairwells
C0	K0	K0	K0	K0	K0
C1	K1	K2	K1	K0	K0
C2	K3	K3	K2	K1	K1
C3	not specified	not specified	not specified	K1	K3

Table 23

## Fire rating of fire barriers

Name of fire barriers	Type of fire barriers	Fire rating of fire barriers	Type of fill openings in fire barriers	Type of air locks
Walls	1	REI 150	1	1
	2	REI 45	2	2
Septa	1	EI 45	2	1
	2	EI 15	3	2
Translucent glass wall with an area of more than 25 percent	1	EIW 45	2	1
	2	EIW 15	3	2
Overlap	1	REI 150	1	1
	2	REI 60	2	1
	3	REI 45	2	1
	4	REI 15	3	2

Table 24

## Limits of fire fill openings in fire barriers

Name infill openings in fire barriers	Type of fill openings in fire barriers	Fire resistance
Doors (except for doors with glass for more than 25 percent and gas-tight doors), doors, hatches, valves, curtains and screens	1	EI 60
	2	EI 30
	3	EI 15
Doors with glass for more than 25 percent	1	EIW 60
	2	EIW 30
	3	EIW 15

Gas tight doors (except for doors with glass for more than 25 percent)	1	EIS 60
	2	EIS 30
	3	EIS 15
Gas tight doors with glass for more than 25 percent, curtains and screens	1	EIWS 60
	2	EIWS 30
	3	EIWS 15
Doors lift shafts	2	EI 30 (in buildings with no more than 28 meters of fire resistance doors elevator shafts made E 30)
Windows	1	E 60
	2	E 30
	3	E 15
Curtains	1	EI 60

Table 25

Requirements for elements of air locks

Type of air locks	Types of elements air locks		
	Septa	Overlap	Filling openings
1	1	3	2
2	2	4	3

Table 26 - No longer in force.  
(in ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Table 27

The list of indicators to assess the fire hazard of building materials

(In ver. Federal Law of 10.07.2012 N 117-FZ )

Purpose of building materials	The list of necessary parameters depending on the purpose of building materials				
	flammability group	group of flame propagation	Group flammability	Group smoke-forming ability	Group toxicity of combustion products
Materials for walls and ceilings, including coverage of paints, enamels, lacquers	+	-	+	+	+
Materials for flooring, including carpet	-	+	+	+	+
Roofing materials	+	+	+	-	-
Waterproofing and vapor barrier materials with thickness greater than 0.2 mm	+	-	+	-	-
Thermal insulation materials	+	-	+	+	+

Notes: 1. A "+" indicates that the figure should be used.

2. The "-" means that the index is not used.

3. In the application of waterproofing materials for the surface layer of the roof indicators of fire risk should be determined by the position of "Roofing".

Table 28

Application area of decorative finishing, coating and floor coverings in escape routes

Class (subclass) functional fire hazard buildings	Floors and building height	Fire rating class material, not more than a specified			
		for walls and ceilings		flooring	
		Lobbies, staircases, lift lobbies	Common corridors, hallways, lobbies	Lobbies, staircases, lift lobbies	Common corridors, hallways, lobbies
F1.2, F1.3, F2.3, F2.4, F3.1, F3.2, F3.6, F4.2, F4.3, F4.4, F5.1, F5.2, F5. 3	no more than 9 stories or more than 28 meters	KM2	KM3	KM3	KM4
	more than 9 but not more than 17 stories or more than 28, but not more than 50 meters	KM1	KM2	KM2	KM3
	more than 17 stories or 50 meters	KM0	KM1	KM1	KM2
F1.1, F2.1, F2.2, F3.3, F3.4, F3.5, F4.1	regardless of the number of floors and height	KM0	KM1	KM1	KM2

Table 29

Application area of decorative finishing, coating and flooring in hall-rooms, except for flooring of sports arenas and sports facilities floor ballrooms

(In ver. Federal Law of [10.07.2012 N 117-FZ](#) )

Class (a subclass) (functional fire hazard buildings	Capacity nasal space, people	Class material, not more than a specified
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		for walls and ceilings	for floor coverings
F1.2;	More than 800	KM0	KM2
F2.3, F2.4, F3.1, F3.2;	more than 300 but not more than 800	KM1	KM2
F3.6, F4.2, F4.3, F4.4;	more than 50 but not more than 300	KM2	KM3
F5.1	no more than 50	KM3	KM4
F1.1, F2.1;	More than 300	KM0	KM2
F2.2, F3.3, F3.4, F3.5;	more than 15 but not more than 300	KM1	KM2
F4.1	no more than 15	KM3	KM4

Table 30

The list of indicators to assess the fire hazard of textile and leather materials and valuation requirements

Fire danger	The function of the				
	Blinds and curtains	Bedding	Elements of upholstered furniture (including leather)	Special protective clothing	Carpeting
Flammability	+	+	+	+	+
Resistance to heat flow	-	-	-	+	-
Thermal protective performance when exposed to flame	-	-	-	+	-
Flame spread	-	-	+	-	+
Toxicity index of the products of combustion	+	-	+	-	+
Coefficient of smoke	+	-	+	-	+

Notes:

1. A "+" indicates that the figure should be used.
2. The "-" means that the index is not used.