# Guidelines on fire safety measures during assembly, maintenance, and dismantling of temporary facilities in pavilions and at the outdoor venues of the event central venue

- 1. These guidelines have been drawn up on the basis of Federal Law No. 69-FZ 'On Fire Safety' of 21 December 1994 and Federal Law No. 123-FZ 'Technical Regulations for Fire Safety' of 22 July 2008, and in accordance with the Russian Federation Fire Safety Regulations (PPR), SP 514.1311500.2022 'Temporary buildings and structures for mass events. Fire Safety Requirements', approved by Order No. 307 of the Ministry of the Russian Federation for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters of 4 April 2022 (hereinafter, SP 514.1311500.2022), and the Temporary recommendations for ensuring the fire safety of temporary buildings and structures for the provision and holding of mass events, approved by the Department of Supervisory Activities and Preventive Work of the Ministry of Emergency Situations of the Russian Federation on 8 April 2020. These guidelines establish the basic provisions for fire safety in pavilions and outdoor venues of the event.
- 2. Responsibility and oversight of compliance with fire codes during the assembly, maintenance, and dismantling of temporary facilities in indoor and outdoor venues of the event shall rest with the managers and authorized representatives of the contractors.

All employees of contractors shall be obliged to understand and comply with the requirements of:

- these guidelines;
- PPR;
- Fire safety requirements for contractors carrying out design, construction and installation works as well as the operation of temporary facilities at the event main venue;
- SP 514.1311500.2022;
- Temporary recommendations for ensuring the fire safety of temporary buildings and structures for the provision and holding of mass events.
- 3. Officials responsible for fire safety during work shall be designated by order of the contractor management from employees who have undergone basic fire safety training and must:
  - ensure compliance with the fire safety regulations;
  - inform employees of the requirements for the prevention of smoking outside specially designated and equipped places, as well as monitor the implementation of these requirements;
  - before commencing work, conduct fire safety briefing (with signed acknowledgement) on fire safety
    measures when located on or performing work (services) relating to the preparation or holding of an
    event, as well as with the study of the documents indicated in paragraph 3 of these guidelines;
  - provide to the Technical Directorate copies of orders on the appointment of those responsible for ensuring fire safety and certificates of completion of training by those responsible for ensuring fire safety.
- 4. Fire safety briefing shall be carried out in accordance with the procedure for training fire safety measures by persons engaged in labour or service activities in the organization and trained on fire safety measures according to additional professional programmes in the field of fire safety, approved by the Order No. 806 of the Ministry of the Russian Federation for Civil Defence, Emergencies and Elimination of Consequences of Natural Disasters of 18 November 2021, or who have secondary vocational and (or) higher education in the Fire Safety specialty or in the Technosphere Safety training programme in the field of fire safety (hereinafter, fire-technical education), or who have passed the procedure of independent qualification assessment, during the period of validity of the certificate of qualification:
  - by the head of the organization;
  - by a person who, by his position or the nature of the work performed, is responsible for ensuring fire safety at the protected facility in the organization, appointed by the head of the organization;
  - an official appointed by the head of the organization responsible for conducting fire safety briefings in the organization;
  - by other persons by the decision of the head of the organization.

Persons who have been trained on fire safety measures under additional professional programmes in the field of fire safety, or persons with fire-technical education, or persons who have passed the

procedure of independent qualification assessment, during the period of validity of the certificate of qualification, may be involved in conducting fire safety briefings on the basis of a civil contract. 5. When electrical equipment and power tools are connected, the permissible load for electrical wiring must be taken into account. The maximum power value for electrical equipment must be used when calculating the load. Connection may only be by plug connectors in good condition; connecting the strands of electrical cables directly to the sockets is not permitted. Homemade portable lamps may not be used to illuminate workplaces, and the use of portable lamps 6. without protective diffusers is not allowed. Only bulbs with low heat emission may be used in portable lamps. 7. If electrical wiring and electric cables for temporary structures cross, additional protection from mechanical damage, including against damage to the insulation, must be provided. Electrical fixtures must be secured. It is not permitted to suspend them from wires or cables. Winding electrical wires in coils is not allowed during installation in order to prevent induction heating. Air ducts for air conditioning systems shall be located at a distance of not less than 100 mm from cables and electrical wiring, and air ducts shall not be permitted to cross such utility lines. Electrical wiring located at a height of less than 2.5 m above floor level shall be enclosed in insulating conduits or cable ducts. Where conductors are routed along the floors of pavilions and pavements of outdoor venues, the conductors and cables shall be covered by plastic or rubber covers and rubber crossing supports (ramps) that do not interfere with the movement of people and vehicles, but at the same time prevent damage to the insulation. 8. Electrical circuits in exhibits must be installed in accordance with the requirements of the regulatory documentation. Damage to the insulation of electrical wiring and cables may lead to short circuits or a ground fault current (FIRE MAY OCCUR!). A break in a strand of a conductor can lead to increased resistance to the transmission of an electric current and as a consequence to local overheating with subsequent melting and fire. Passage of a current greater than indicated can lead to overheating of conductors and, as a consequence, to possible melting of the insulation and even fire. There may be no external signs of damage to indicate that electrical equipment is operating unsafely, but because of the properties of electrical conductors and contacts after increased heating, increased resistance of flow to the electrical current may occur, which in turn will lead to even greater overheating. The majority of power tools emit heat when in operation, and if heat removal is difficult or not possible overheating will occur with subsequent abnormal operation, which may lead to fire. To prevent fires: check the condition of cables and extension cords no less than once per hour; do not permit items and equipment to be stored on top of electrical wiring; when connecting equipment, consider the permitted load for the extension cord, not the number of connections plugged in; do not permit electrical equipment that has evident damage to the housing, power cord, or plugs to be used; when setting out electrical equipment, follow the manufacturer's instructions; leave air gaps between the housings of electrical equipment, etc.; do not use malfunctioning electrical equipment; perform periodic thermal imaging surveys of electrical equipment; do not leave equipment and devices connected to an electrical circuit unattended. It is forbidden to use splices to connect the strands of electrical wiring 9. 10. When installing electrical equipment, electrical wiring, and cables, it is essential to ensure that there is unimpeded access for the fire department to the equipment, wiring, and cables for monitoring of any concealed abnormal heating. 11. After installation of the electrical equipment is complete it is essential to perform a thermal imaging

check of the electrical circuits and electrical equipment for permissible heat levels in accordance with

	the technical documentation from the manufacturer in order to prevent concealed abnormal heating.
12.	Every contractor installing electrical equipment and other equipment must prepare detailed
	instructions containing the properties of the electrical equipment and the regulations for
	disconnecting it in the event of signs of fire, smoke, or overheating, and the operational telephone
	number for the employee of the contractor. Such instructions must be studied with the persons
12	responsible for the relevant rooms and given to them with signed acknowledgement.
13.	Stands, sets, and exhibition equipment shall be assembled in such a way that they are not installed right up against columns where they may impede free access to fire valve cabinets, emergency
	firefighting equipment, and emergency exits.
14.	When performing work, construction companies must ensure:
1	<ul> <li>passageway width of not less than 3 m;</li> </ul>
	- a free distance from building structural elements (walls, columns, partitions, etc.) of not less
	than 1 m;
	– a distance from electrical panels, electrical equipment, sewer and storm sewer pipes, fire valve
	cabinets, and firefighting equipment of not less than 1 m.
15.	Arrangement of furniture in all areas of the stand should provide the following required for escape routes:
	<ul> <li>the width of the section of the evacuation route for the passage to a single workplace shall be</li> </ul>
	at least 0.7 m;
	- for evacuation routes through which more than 50 people can evacuate (including the stands'
	free areas) – 1.2 m;
	- in other cases, the width shall be at least 1 m (auxiliary rooms, meeting rooms for up to 50
16.	people, but with an expected stay of more than 1 person).  With regard to paths of egress travel and exits, it is prohibited:
10.	- to obstruct paths of egress travel and exits (passageways, corridors, stair landings, flights of
	stairs, doors, escape hatches, etc.), access to fire hydrant cabinets, emergency firefighting
	equipment, alarms, and electrical panels with various materials, items, equipment, refuse, or
	other objects, as well as to obstruct the doors of emergency exits;
	<ul> <li>to secure self-closing doors on stairwells, corridors, halls, or vestibules in the open position,</li> </ul>
	as well as to remove them.
17.	It is forbidden to carry out cleaning using flammable and combustible liquids.
18.	It is forbidden to fuel vehicles at the event central venue
19.	Smoking in buildings, structures and on the premises is strictly prohibited, and allowed only in specially designated locations equipped with fire-resistant bins.
20.	Each temporary facility (room, any structure, or stand, including each room within a stand) must be
20.	supplied with emergency firefighting equipment (extinguishers, fire blankets).
21.	Each day, at the end of work (including after each event during the day), the rooms, facilities, and
	stands shall be inspected by officials responsible for the given premises, and only closed after
	electrical devices, office equipment, and lighting have been switched off.
22.	Should a fire (ignition) or signs of fire (smoke, the smell of smoke, increased temperature, etc.) be
	discovered, the person discovering the fire must:
	- without panicking, assess the situation and act in accordance with the fire safety regulations (call the
	fire department on telephone number 01 or 101 and report the building, its address, location of the fire,
	<ul> <li>and full name of the person reporting);</li> <li>take measures to evacuate people, and if there is no threat to life and health of people, measures to</li> </ul>
	- take measures to evacuate people, and if there is no threat to life and health of people, measures to extinguish the fire in its early stages; at the same time everyone must understand the importance of
	quick fire response in its early stages (which is essentially not difficult if there are fire extinguishers at
	all facilities).
	Managers and officials responsible for ensuring fire safety where the event is being held, upon
	arrival at the site of the fire, must:
	<ul> <li>take measures to evacuate people from the premises;</li> </ul>
	<ul> <li>cut off power to equipment which is (or seems to be) the source of the fire or smoke;</li> </ul>
	<ul> <li>begin to extinguish the fire with the emergency fire extinguishers available.</li> </ul>

To avoid panic, it is recommended not to use open communications channels for communications relating to the fire.

In order to coordinate the actions of those involved in the fire prevention team, every day before the start of the event the details (including mobile phone number) of the specific employee on the fire prevention team who is responsible for each pavilion or other facility must be noted. Before work starts and after it is over, including during the day, it is essential to demonstrate the condition of the relevant fixed objects and premises to the fire prevention team member.

Those who violate fire safety regulations, depending on the nature of the violations and their consequences, shall be held liable under the Russian Federation legislation in force. If construction work is carried out in violation of Russian Federation Fire Safety Regulations and fire codes, as well as these guidelines, the representatives of the Technical Directorate may order a halt to construction and demand disassembly.

At present, and in particular since the revisions to the Code of Administrative Offences became effective, the total fines for violation of fire safety requirements have increased significantly, and as a result the total fine for a company has increased from RUB 150,000 to RUB 1 million (or suspension of the operations of the company), and the total fine for an official has increased from RUB 20,000 to RUB 50,000. The amounts indicated are for one violation only; a separate, additional fine is imposed for each type of violation.

#### **Attachment to the Guidelines:**

# 1. Types of fire extinguishers. Efficiency of fire extinguishers

#### 1.1. Carbon dioxide fire extinguishers

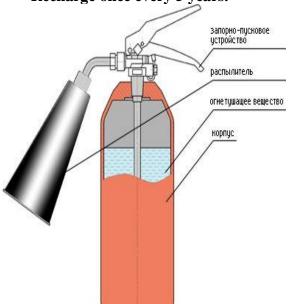


Designed to extinguish fires of various combustible substances, the combustion of which cannot occur without air access at manufacturing facilities, vehicles, electrical installations under voltage up to 1000 V. Their main advantage over other types of fire extinguishers is minimal damage to the protected object.

Carbon dioxide fire extinguishers are used as primary means for extinguishing fires of class B (combustion of liquid substances), C (combustion of gaseous substances), E (electrical installations under voltage up to  $1000 \, \text{V}$ ).

Operating and storage temperature from minus 40°C to plus 50°C.

Recharge once every 5 years.



In order to activate carbon dioxide fire extinguishers OU-3, OU-5, OU-8:

- pull out a pin or break a seal;
- point the bell at a burning object;
- turn the valve handle to the left until it stops.

Turning over the fire extinguisher is not required, keep it upright if possible.

In order to avoid frostbite, do not touch the metal part of the bell with bare parts of the body.

# 1.2. Powder fire extinguishers OP-4 (MIG)



Powder fire extinguisher OP-4 (z)-AVSE 'MIG' with increased fire extinguishing capacity, pumped with dried nitrogen to a pressure of 16 atm.; fire extinguisher grade – 2A, 70B, C, E, powder grade – 'Vekson-ABC 25', weight of fire extinguishing powder – 4 kg, cylinder volume – 5 l, the supply time of the extinguishing agent is 10 seconds.

Designed to extinguish solid materials, liquid substances, gases, electrical installations under voltage up to 1,000V.

Equipped with a locking device that provides free opening and closing with a simple movement of the hand. The pressure indicator mounted on the head of the fire extinguisher allows you to visually determine its performance. Operates at a temperature from minus 50°C to plus 50°C.

To activate a powder fire extinguisher OP-4 (z)-AVSE 'MIG', it is necessary to shake it (the powder cakes over time), break the seal, pull out the pin, press the trigger lever and direct the powder jet to the combustion source. A jet of fire extinguishing agent with a length of at least 3 m allows you to extinguish the source of fire while being at a safe distance from it





Powder fire extinguisher OP-25, pumped with extinguishing powder and gas (air, nitrogen, carbon dioxide) to a pressure of 16 atm.; fire extinguisher grade – 6A, 233B, weight of fire extinguishing powder – 25 kg, cylinder volume – 25 l, the supply time of the extinguishing agent is 20 seconds.

Designed to extinguish solid materials, liquid substances, gases, electrical installations under voltage up to 1,000V.

Equipped with a locking device that provides free opening and closing with a simple movement of the hand. The pressure indicator mounted on the head of the fire extinguisher allows you to visually determine its performance. Operates at a temperature from minus 40°C to plus 50°C.

To activate a powder fire extinguisher OP-25, it is necessary to tear off the seal, deploy the hose and direct the nozzle to the burning surface, turn the handle of the locking and starting device to a fixed position. A jet of fire extinguishing agent with a length of at least 6 m allows you to extinguish the source of fire while being at a safe distance from it

#### 1.3. BONTEL fire extinguishers



BONTEL fire extinguisher is filled with BONTEL fire extinguishing agent and belongs to the class of air-emulsion fire extinguishers with a thinly sprayed jet; designed to extinguish A class fires (solid combustible substances), B class fires (flammable liquids), C class fires (combustion of gas in industrial enterprises, warehouses for storage of combustible materials, in domestic premises as well as on vehicles), E class fires (electrical equipment under voltage up to 25,000 V), electrical equipment under voltage over 1,000 V.

Cylinder volume -2 l, displacing gas - nitrogen (N2), jet length -4 m, the body is steel with an anti–corrosion coating. Operates at a temperature from minus  $20^{\circ}$ C to plus  $50^{\circ}$ C.

To activate a Bontel fire extinguisher, it is necessary to bring the fire extinguisher to the fire site, tear off the seal and pull out the safety lock (pin), direct the spray nozzle to the fire source and press the trigger lever. A jet of fire extinguishing agent with a length of at least 4 m allows you to extinguish the source of fire while being at a safe distance from it

# 2. How to use a fire extinguisher





порциями через 3-5 секунд

















### 3. Placement of fire extinguishers

Each temporary facility (premises, tent, structure, stand) must be provided with fire extinguishers for the duration of the installation, dismantling, as well as during the events.

Fire extinguishers should be placed in accordance with the requirements of GOST 12.4.009 (section 2.3) in such a way that they are protected from direct sunlight, heat fluxes, mechanical influences and other adverse factors (vibration, aggressive environment, high humidity, etc.). They must be clearly visible and easily accessible in the event of a fire.

It is preferable to place fire extinguishers near the places of the most likely occurrence of a fire, along the paths of passage, and also near the exit from the premises. Fire extinguishers should not interfere with the evacuation of people during a fire.

In rooms equipped with furniture or equipment that obscure fire extinguishers, signs of their location should be installed. The signs must be made in accordance with GOST 12.4.026 and well visible, located at a height of 2–2.5 m from the floor level, and should be placed with consideration of their visibility (GOST 12.4.009).

The distance from a possible source of fire to the nearest fire extinguisher is determined by the requirements of the rules, and should not exceed 20 m.

It is recommended to install portable fire extinguishers on suspension brackets or in special cabinets. Fire extinguishers should be located so that the main inscriptions and pictograms showing the order of putting them into action are clearly visible and facing outward or in the direction of the most likely approach to them.

The locking and starting device of fire extinguishers and the cabinet doors (if they are placed in the cabinet) must be sealed.

Fire extinguishers with a total mass of less than 15 kg must be installed in such a way that their top is located at a height of not more than 1.5 m from the floor; portable fire extinguishers with a total weight of 15 kg or more must be installed so that the top of the fire extinguisher is located at a height of not more than 1 m. They can be installed on the floor, and must be fixated in order to prevent a possible fall due to accidental impact.

The distance from the door to the fire extinguisher must be such that it does not interfere with its full opening.

Fire extinguishers should not be installed in places where temperatures are outside the temperature range indicated on the fire extinguishers.

# 4. Requirements for extinguishing electrical installations and industrial equipment

Extinguishing fires in electrical installations is carried out after removal of voltage from the burning and neighbouring installations. In the cases when it is impossible to remove the voltage from burning installations, it is allowed to extinguish them under voltage with freon (up to 380 V), powder or carbon dioxide fire extinguishers up to 1,000 V.

In order to avoid electric shock during extinguishing, it is necessary to strictly observe the safe distances to electrical installations (1 m), use nozzles made of dielectric materials in fire extinguishers, and also use individual insulating means (dielectric galoshes, boots, gloves).

It is prohibited to extinguish installations and equipment under voltage with water.

## 5. Contents and the principles of work of BONTEL fire extinguishing device



#### **Contents of the device:**

BONTEL fire extinguishing device is a sealed glass ampoule, equipped with a fastening, made of safety glass and filled with BONTEL fire extinguishing composition.

#### **Operating principle:**

The device is installed horizontally above the place of possible fire or at equal distances throughout a room.



During a fire, as the temperature rises, a series of chemical reactions begin in the device, and as a result, pressure increases inside the ampoule. When the temperature of the extinguishing agent reaches 90 °C, the ampoule breaks down and sprays the contents over the source of ignition. In this case, most of the liquid passes into the gaseous phase.

The extinguishing agent works combines different extinguishing methods. It cools down the fire area, dilutes the combustible medium with vapours of a noncombustible substance, isolates the ignition source from the combustible medium with a

stable film that prevents re-ignition with subsequent self-decomposition.

If the BONTEL device is equipped with a triggering control, a signal about the triggering of the device is sent to the control system of the automatic fire extinguishing installation and/or to the control point.

#### Use as a primary fire extinguishing equipment:

If small outbreaks of fire are detected outside the location area of the BONTEL device, it is possible to use the ampoule as a primary fire extinguishing appliance. In order to do this, it is necessary to remove the ampoule from the bracket and throw it into the wall above the fire or into the ceiling above the fire so that the ampoule breaks. The extinguishing agent will spray over the fire extinguishing the fire area in a combined manner.

For effective extinguishing of large fires, a solution of the BONTEL composition with water can be used. For this, the composition of one BONTEL ampoule is diluted in no more than 10 litres of water.

# 6. Other primary extinguishing equipment

#### 6.1. Indoor fire hydrants





### Hose for a fire hose cabinet

Designed to extinguish solid combustible materials and combustible liquids with water.

The indoor fire hydrant is put into operation by two people. One lays the hose and keeps the fire hose ready to supply water to the fire area, the other checks the connection of the fire hose to the fitting of the internal tap and opens the valve for water to enter the fire hose.

#### 6.2. Asbestos cloth, felt

The fire blanket is designed to localize combustion in the initial stage of a fire, extinguish burning clothes, protect structures and equipment during hot works.

The fire blanket is made of asbestos fabric (temperature range up to 400°C), basalt fabric



(temperature range up to 700°C) or fiberglass (temperature range up to 1000°C). It is used to extinguish small fires of any substances. The combustion centre is covered with an asbestos or felt cloth in order to stop air from accessing it.

#### **6.3. Sand**



Sand is used for mechanical knocking down of the flame and insulation of a burning or smoldering material from the surrounding air. Sand is fed into the fire with a shovel.



It is prohibited to use primary fire extinguishing equipment for household and other needs not related to extinguishing fires.

#### 7. Procedure in case of fire

IN CASE OF FIRE: IMMEDIATELY CALL THE FIRE SERVICE AT 01 or 101.

SAY THE ADDRESS, PLACE OF FIRE (pavilion number, stand, hall, room, or other) SAY YOUR SURNAME AND PHONE NUMBER.



TAKE MEASURES TO EVACUATE PEOPLE. If possible, DISCONNECT THE POWER. START EXTINGUISHING THE FIRE WITH AVAILABLE EXTINGUISHING EQUIPMENT. IF YOU FAILED TO EXTINGUISH THE FIRE IN THE INITIAL STAGE, LEAVE THE BURNING ROOM IMMEDIATELY. ACT CALM AND ORGANIZED. DO NOT PANIC. AS YOU LEAVE CLOSE THE DOORS TIGHTLY TO KEEP THE FIRE OUT.

IN A ROOM FILLED WITH SMOKE, MOVE AS CLOSER TO THE FLOOR AS POSSIBLE – THERE IS LESS SMOKE THERE.



STICK TO THE WALLS SO YOU CAN'T LOSE ORIENTATION IN THE SMOKE.

BREATHE THROUGH A WET CLOTH.

IF THE FIRE CUT OFF THE WAY TO THE EXIT, STAY INSIDE. PUT WET CLOTHS AT THE BOTTOM OF THE DOOR. CALL FOR HELP FROM THE WINDOW.

DO NOT USE LIFTS!





DO NOT RETURN BACK TO THE BUILDING WHERE THE FIRE HAPPENED WITHOUT PERMISSION, IT IS DANGEROUS!

IF THERE ARE INJURED PEOPLE, CALL AN AMBULANCE AT 103. GIVE FIRST AID TO THE INJURED BEFORE THE AMBULANCE ARRIVAL AND DO NOT LEAVE THEM UNATTENDED.

MEET THE FIRE BRIGADE AND GIVE THE SHORT ROUTE TO THE FIRE SITE. INFORM THE LEADER OF THE FIRE BRIGADE ABOUT THE NUMBER OF EVACUATED PEOPLE AND WHETHER THERE

ARE OTHER PEOPLE IN THE BUILDING (first find out if everyone was evacuated).



# 8. Rules for providing first aid to fire victims

#### First aid for toxic inhalation



Убедись, что ни тебе, ни пострадавшему ничего не угрожает, вынеси пострадавшего в безопасное место или открой окна, проветри помещение.

Признаки отравления угарным газом: резь в глазах, звон в ушах, головная боль, рвота, потеря сознания, покраснение кожи.

Признаки отравления бытовым газом: тяжесть в голове, головокружение, шум в ушах, рвота, резкая мышечная слабость, усиление сердцебиения, сонливость, потеря сознания, непроизвольное мочеиспускание, побледнение (посинение) кожи, поверхностное дыхание, судороги.



Определи наличие самостоятельного дыхания (движение грудной клетки – опустите голову и прислушайтесь, либо по запотеванию зеркала).



При отсутствии признаков жизни приступай сердечно-легочной К реанимации. Вызови (самостоятельно или окружающих) C ПОМОЩЬЮ скорую медицинскую помощь. Проводи сердечнолегочную реанимацию до восстановления самостоятельного дыхания или ДО прибытия медицинского персонала.



После восстановления дыхания (или если дыхание было сохранено) придай пострадавшему устойчивое боковое положение. Обеспечь постоянный контроль за дыханием до прибытия скорой медицинской помощи!

# First aid for burns



Убедись, что тебе ничего не угрожает. Останови пострадавшего. Уложи его на землю.



Потуши горящую одежду любым способом (например, накрой человека негорючей тканью).

Вызови (самостоятельно или с помощью окружающих) скорую медицинскую помощь.



Охлади ожоговую поверхность водой в течение 20 минут.



Пузыри не вскрывать. Из раны не удалять посторонние предметы и прилипшую одежду! Наложи на ожоговую поверхность стерильную повязку и холод поверх повязки. Дай обильное питьё.